

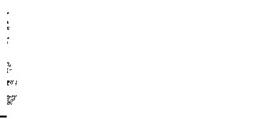
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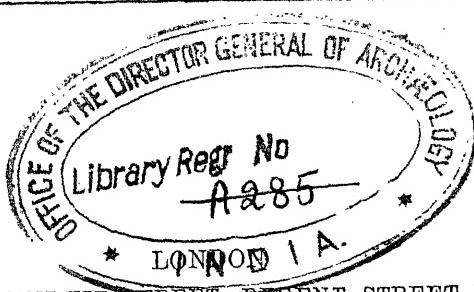
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- ARTS AND CRAFTS EXHIBITION SOCIETY—Catalogue of the eleventh exhibition. 8o. Lond. 1916
- ASSOCIATION OF SCIENCE TEACHERS—School laboratories for chemistry, physics, botany [and] general science. pam. 4o. [Lond.] 1914
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- BOLTON (ARTHUR T.), Fellow—Pitzhanger manor, . . . the country retreat . . . of Sir John Soane [&c.]. pam. ob. 8o. Lond. [1918]
- BOMBAY (GOVERNMENT OF)—Sir J. J. School of Art—Year book, 1917. 8o. [Bombay 1917]
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- SEARLE (A. B.)—Kilns and kiln building. 8o. Lond. 1915
- SWARBRECK (S. D.)—Sketches in Scotland. fo. Lond. 1839
- YEOMANS (A. B.) *Editor*—City residential land development . . . Competitive plans for subdividing . . . land in the outskirts of Chicago. fo. Chicago [1916]
- TOUT (T. F.)—Mediæval town planning: a lecture delivered at the John Rylands library . . . 13 Dec. 1916 [&c.]. 8o. Manchester 1917
- WILLIAMS (R.)—Jerusalem, the city of many sieges. 8o. Alexandria 1918
- ZONCA (V.)—Novo teatro di machine et edificii [&c.]. 4o. Padua 1621
- TOTAL:—45 VOLUMES. 3 PAMPHLETS.**
- ### THE LOAN LIBRARY.
- #### PRESENTED.
- BAKER (W. J.), the publisher—**FAMILY HOMES**—A second series of over 60 designs for family homes [&c.]. 4o. Lond. 1912
- A third series of sixty designs [&c.]. 4o. Lond. 1913
- SETH-SMITH (W. H.) AND MONRO (W. E.)—Ideal designs for houses [&c.]. 4o. Lond. n.d.
- CONCRETE PUBLICATIONS, LTD., the publishers—**LAKEMAN (ALBERT)**—Concrete cottages, small garages, and farm buildings. 8o. Lond. 1918
- CAMBRIDGE UNIVERSITY PRESS, the publishers—**MANSON (J. LEASK)**—Experimental building science, vol. i. 8o. Cambridge 1917
- GRIFFITH (MISS)—SOANE (SIR JOHN)—Description of the house and museum on the north side of Lincoln's Inn-Fields, the residence of J. S. [&c.]. fo. Lond. 1835
- HODGE & CO. (W.), the publishers—WHYTE (W. E.)—Digest of the Royal Commission on Housing in Scotland [&c.]. 8o. Edinburgh and Glasgow 1918
- PUTNAM'S SONS (G. P.), the Publishers—KING (G. G.)—George Edmund Street: unpublished notes and reprinted papers, with an essay by G. G. K. 8o. [New York] 1918
- TOTAL:—8 VOLUMES.**
- #### PURCHASED.
- ADAMS (HENRY)—Theory and practice in designing. 8o. Lond. 1911
- ASHBEE (C. R.)—Where the great city stands: a study in the new civics. 4o. Lond. 1917

- BOND (F. BLIGH)—The gate of remembrance [&c.] 8o. Oxford 1918
- BOULGER (G. S.)—Wood, a manual of the natural history and industrial application of the timbers of commerce. 2nd ed. 8o. Lond. 1908
- HUSBAND (J.) AND HARBY (W.)—Structural engineering. 2nd ed. 8o. Lond. 1914
- JACK (GEORGE)—Wood carving : design and workmanship [&c.]. 8o. Lond. 1913
- KENDRICK (A. F.)—English embroidery. 8o. Lond. 1913
- KERSHAW (G. B.)—Sewage purification and disposal. 8o. Cambridge 1915
- LAKEMAN (ALBERT)—Concrete cottages, small garages, and farm buildings. 8o. Lond. 1918
- MORRIS (C. T.)—Designing and detailing of simple steel structures. 3rd ed. 8o. New York and Lond. 1914
- POST (C. L.)—Building superintendence for reinforced concrete structures [&c.]. 8o. Chicago 1917
- RANSOME (E. L.) AND SAURBREY (A.)—Reinforced concrete buildings [&c.]. 8o. New York and Lond. 1912
- TOUT (T. F.)—Medieval town planning : a lecture delivered at the John Rylands library . . . 13 Dec. 1916 [&c.]. 8o. Manchester 1917
- TOTAL :—13 VOLUMES.
-

DRAWINGS PRESENTED.

- GRACE (JOHN DIBLEE), *Hon. Associate*, the Artist.
- II.—PORTFOLIO OF MOUNTED DRAWINGS AND SKETCHES
- Assisi : Church of S. Francesco (upper church) ; study of vaulting decoration with various details of ornament; 4 sheets. D. 1859
- S. Francesco (upper church) ; full size details of dado decoration ; details of stained glass in apse and S. transept windows ; details of tarsia ornament to stalls ; the marble pulpit (perspective view) ; 9 sheets. D. 1859
- Church of S. Francesco ; (lower church) view of interior ; details of roof and wall decorations and of stained glass ; 6 sheets. D. 1859
- Bologna : Church of S. Petronio ; details of stained glass ; 2 sheets. D. [1875]
- S. Petronio ; details of vaulting decoration ; 2 sheets. D. 1863
- Brescia : Palazzo Martinengo ; detail of a ceiling decoration. D. 1863
- Civita Castellana : the cathedral ; details of mosaics over entrance (exterior) ; sketch elevation of sedilia in chapel, with details of mosaic decoration ; 2 sheets. D. 1859
- Ferrara : Castello Vecchio ; detail of wall decoration by Dosso Dossi. D. 1863
- Florence : Church of S. Miniato ; detail of fresco border in the sacristy ; detail of ceiling decoration in chapel; 2 sheets. D. 1859
- S. Trinità ; detail of wall decoration and of pilaster carving ; 2 sheets. D. 1859, 1901
- S. Croce ; view of the choir. D. 1859
- S. Croce ; details of wall and vaulting decoration ; study of cupola decoration in the cloisters ; 4 sheets. D. 1859
- S. Croce ; various studies of stained glass ; 4 sheets. D. 1859
- sketch of the pulpit ; detail of frieze to wrought iron screen. D. 1859
- Church of S. Maria Novella ; study of stained glass of choir window (middle compartment of centre light). D. 1859
- Palazzo Vecchio ; detail of wall and vaulting decoration in cortile. D. 1859

- Florence : Palazzo Vecchio ; details of ceiling and window soffit decoration ; 2 sheets. D. 1859
- Palazzo Vecchio ; (chapel of S. Bernardo) studies of wall and ceiling decoration ; 4 sheets. D. 1859
- Palazzo Riccardi (Medici chapel) study of ceiling decoration ; details of stall carving ; 3 sheets. D. 1859, 1904
- Genoa : the cathedral ; sketch elevation of brass candelabrum with details of mouldings. D. 1859
- Church of S. Lorenzo ; detail of carved ornament, N. doorway. D. 1859
- Church of S. Matteo ; a capital in the cloisters. D. 1859
- Palazzo Doria Pamfili ; study of vaulting decoration in the Sala dei Giganti and the upper loggia ; 2 sheets. D. 1863
- Palazzo Spinola ; studies of vaulting decoration ; 2 sheets. D. 1859
- House in the Strada Nuova ; study of staircase vaulting decoration. D. 1859
- Dominican convent ; detail of vaulting decoration. D. 1859
- Lucca : the cathedral ; water-colour sketch of interior ; study of the colour decoration of a nave vault with detail of the ornament to larger scale ; details of aisle roof decoration ; 4 sheets. D. 1859
- Mantua : Palazzo del Tè ; studies of fresco decorations in the Sala di Psiche and Sala di Cesare ; 5 sheets. D. 1863, 1906
- Palazzo Ducale ; detail of ceiling decoration. D. 1863
- Palazzo Vecchio ; detail of ceiling decoration. D. 1863
- Milan : Church of S. Satiro : detail of ceiling decoration. D. 1875
- S. Vittore ; details of the dome and nave roof decorations. D. 1875
- Orvieto : the cathedral ; view of interior looking E. D. [1859]
- the cathedral ; elevation and section of one bay of choir stalls. D. 1859
- detail of decoration to shaft—arch leading to the chapel of S. Brizio. D. [1859]
- the cathedral (chapel of S. Brizio) study of the wall decoration ; 2 sheets. D. 1859
- the cathedral (chapel of S. Corporale) detail of vault rib decoration. D. 1859
- Padua : Church of S. Agostino degli Eremitani ; detail of fresco decoration in the Mantegna chapel. D. 1875
- Chapel of S. Giorgio ; detail of fresco decoration. D. 1875
- Chapel of the Madonna dell' Arena ; details of fresco painting and stained glass ; 2 sheets. D. 1875
- Parma : the cathedral ; details of vaulting decoration and of the frescoes in the chapels ; 7 sheets. D. 1863
- Church of S. Giovanni Evangelista ; detail of vaulting and ceiling decoration ; 3 sheets. D. 1901
- Pavia : the Certosa ; decorative details from the chapel and the refectory ; 3 sheets. D. 1863
- Perugia : Church of S. Pietro ; detail of frieze carving of the choir stalls ; study of illumination from a choir-book (dated 1511-18). D. 1859
- Collegio del Cambio ; studies of colour decoration of the chapel ; 3 sheets. D. 1859, 1904
- Piacenza : church of S. Sisto ; details of ceiling decorations—Nave, transept and N. aisle ; 3 sheets. D. 1904
- S. Maria della Campagna ; detail of cupola decoration. D. 1863
- Pisa : the cathedral ; pencil sketch of sculptured lion supporting a column of pulpit ; study of mosaic over W. door ; study of stained glass (window of S. aisle) ; 3 sheets. D. 1859

- Pisa : baptistery ; water-colour sketch of pulpit. D. 1859
 —— Campo Santo ; detail of coloured diaper from a monument ; 2 sheets. D. 1859
 Pistoia : church of S. Andrea : sketch of figure sculpture at an angle of pulpit. D. 1859
 Prato : the cathedral ; details of vaulting decoration in the chapel of the high altar and the Capella della Cintola ; 2 sheets. D. [1859]
 Ravenna : Church of S. Apollinare Nuovo ; studies of mosaic decoration ; 3 sheets. D. 1875
 —— S. Apollinare in Classe ; studies of mosaic decoration ; 2 sheets. D. 1875
 —— S. Vitale ; details of mosaic decoration in choir ; 2 sheets. D. [1875]
 —— Tomb of Galla Placidia ; details of mosaic decorations ; 2 sheets. D. [1875]
 —— Chapel of the Archiepiscopal Palace ; detail of mosaic decoration. D. [1875]
 Rome : Baptistry of S. Constanza ; details of IVth century mosaics. D. 1859
 —— Basilica of S. Paulo ; detail of mosaic border on arch of tribune. D. 1859
 —— Basilica of S. Lorenzo ; details of mosaic decorations. D. 1859
 —— Church of S. Clemente ; details of colour decoration of tribune. D. 1859
 —— S. Giovanni in Laterano ; study of mosaic decoration : (Baptistery)—details of colour decoration ; (Chapel of S. Lorenzo)—detail of colour decoration ; 2 sheets. D. 1859
 —— S. Maria in Ara Coeli ; details of mosaic decoration. D. 1859
 —— S. Maria della Pace ; detail elevation of Ponzetti monument ; decorative details of a demivault in a side chapel ; 2 sheets. D. 1859
 —— S. Maria del Popolo ; cupola over the choir. D. 1859
 —— S. Maria sopra Minerva ; details of pilaster carving from two monuments. D. 1859
 —— Palazzo Farnesina ; detail of wall painting in entrance hall ; study of ceiling in the Camera di Alessandro, with section and details of cornice decoration ; 2 sheets. D. [1859]
 —— Villa Madama ; detail of decoration of central cupola of the portico. D. 1859
 —— Vatican ; stanza of the "School of Athens" ; vaulting decoration. D. 1859
 —— Vatican ; appartamenti Borgia—detail of fresco decoration. D. 1859
 —— Vatican ; loggia of Raphael—detail of fresco decoration, vault of second bay. D. 1859
 —— Museo Borbonico ; studies of mosaics and painted decoration from Pompeii and Herculaneum ; 3 sheets. D. 1859
 —— study of antique bas-relief stucco decoration (via Latina). D. 1859
 Siena : the cathedral ; detail of spandrel decoration ; sketch plan of library ceiling showing system of colour decoration with details of mouldings ; study of fresco decoration in the Sala Piccolomini, with sketch plan of vaulting ; study of majolica tile pavement ; 4 sheets. D. 1859
 —— the cathedral ; baptistery of S. Giovanni—water-colour drawing of interior ; decorative details of vaulting ribs ; 2 sheets. D. 1859
 Siena : Palazzo Pubblico ; details of decoration of a door frame. D. 1859
 —— Palazzo Pubblico (the chapel) detail elevation of iron screen, with sections of mouldings ; wash drawing of a compartment of the sedilia with full size details of : " " " ; 3 sheets. D. 1859
 —— Palazzo Pubblico ; Sala del Gran Consiglio ; details of fresco paintings. D. [1859]
 —— Fountain of S. Giovanni ; pencil drawing. D. 1859
 Turin : the cathedral ; part elevation of brass screen to side chapel (figured sketch, with details of mouldings) ; 2 sheets. D. 1859
 —— Hotel Feder ; sketch elevation of part of facade. D. 1859
 Venice : Accademia di Belle Arti ; detail of ceiling decoration. D. 1863
 —— Palazzo Ducale ; detail of carved wooden ceiling—Sala dei Busti ; details of ceiling decorations—Camera degli Scarlatti ; 3 sheets. D. 1863
 —— Palazzo Grimani ; details of ceiling decorations ; 4 sheets. D. 1875
 —— Scuola di S. Rocco ; details of ceiling decorations ; 2 sheets. D. 1875
 —— Church of S. Marco ; details of mosaics of portico. D. 1863
 —— S. Maria Gloriosa dei Frari ; detail of vaulting decoration. D. 1906
 —— S. Maria dei Miracoli ; studies of ceiling decoration ; 2 sheets. D. 1906
 —— S. Sebastiano ; studies of ceiling decorations ; 2 sheets. D. 1906
 —— S. Stephano ; detail of ceiling decoration. D. 1906
 —— S. Zaccaria ; detail of decoration to soffit of choir within the chapel. D. 1863
 Verona : Church of S. Anastasia ; detail of transept vaulting decoration. D. 1863
 —— S. Fermo ; details of fresco decorations. D. 1863
 —— S. Maria in Organo ; study of wall and ceiling decoration. D. 1906
 —— S. Zeno ; details of fresco decoration. D. 1863
 Amiens : the cathedral ; detail study of stained glass. D. 1867
 Avignon : palais des Papes ; details of fresco decoration by Giotto in the private chapel. D. 1859
 Caudebec : church of S. Marie (chapel of Saint-François) ; detail of stained glass window. D. 1905
 Lyons : the cathedral ; measured sketch elevation of a bench panel with details of carving. D. 1859
 Munich ; the Frauenkirche ; detail of stained glass. D. 1867
 Nuremberg : church of S. Sebald ; various details of stained glass. D. 1867
 Strassburg : the cathedral ; detail studies of stained glass ; 2 sheets. D. 1867
 CRACE (JOHN DIBLEE), Hon. Associate, the Artist. Sketch-book of miscellaneous studies of architectural and other subjects in Spain. 63 pp. fo. D. 1871
 TOTAL :—DRAWINGS : 193 SHEETS : I VOL.

JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Eighty-fourth Session—1917-18.

ADDRESS BY THE PRESIDENT, MR. HENRY T. HARE,
at the Opening General Meeting, Monday, 5th November, 1917.

LADIES AND GENTLEMEN,—For the fourth time our session opens under the shadow of the great war, and the conditions under which we exist as a profession have not varied from those in which our late President addressed us last year, except that there has been a material tightening up of the restrictions which limit, and indeed practically forbid, the exercise of our calling. We had hoped that we might have seen this chair still occupied by the same President who has so ably conducted the affairs of the Institute since the beginning of the war, and who held all the threads of such activities as were permitted to us, and that he would have continued until he could hand over the office under peace conditions. This, however, was not to be ; and we realised that there must be a limit beyond which endurance could not be strained. I am sure I am expressing the universal feeling amongst our members, and particularly those who are members of the Council, and therefore more intimately acquainted with the strenuous nature of the work which falls to the lot of the occupant of the President's chair, when I say that the Institute and the profession as a whole are deeply indebted to Mr. Newton for the manner in which he has throughout kept before him the single-minded view of pressing forward the interests of architects and architecture, and their claims to recognition. If we have not succeeded to the extent to which we should have desired, it has been entirely due to unfortunate prejudices and want of knowledge as to our real functions in many quarters, and amongst the public generally.

These prejudices it must be one of our principal objects to remove by endeavouring to educate and interest the public, a task which is probably the work of a generation or two at least. We feel very strongly that had our special qualifications been properly understood, we should have been allowed and invited to serve the national needs in many directions where less qualified, or entirely unqualified, persons have been employed.

By far the most important event which has taken place during the past twelve months is the entry of the United States into the war by our side, thus uniting the whole of the Anglo-Saxon race to fight for a common object. As architects we have exchanged most cordial greetings with our brother architects in America, many of whom we know well, and count amongst our personal friends. To any of these whom the exigencies of the war may bring over to this side we extend the hand of friendship, and invite them to make such use of this Institute as opportunity may allow them, and we assure them they will be more than welcome.

Although the regular exercise of our profession has been restricted, or practically non-existent, there have still been many grave and weighty questions with which we, as an Institute, have had to concern ourselves. Many of these questions still continue to exercise us, and there are many more before us which will demand most anxious and careful consideration.

In the last address from this chair, the President alluded to the Bill for strengthening and altering the Charing Cross Railway bridge which was then before Parliament, and to the prospect which

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seemed to be opening of sweeping away that unsightly structure and replacing it by a really fine road-bridge worthy of our magnificent river. The hope of this, which was shared by all who have the beauty of our great metropolis at heart, has unfortunately been indefinitely postponed. I am happy to say, however, that the opposition of the R.I.B.A. and the London Society has resulted in very important modifications in the Bill, which will ensure that every opportunity is given to the authorities to consider the possibilities of the greater scheme, which we advocate, before they are committed by large expenditure to the existing bridge and terminus. There seems to be a possibility that it may be realised in time that the bridge and terminus on this side of the river must be hopelessly inadequate to the enormously increased traffic which will result after the war, and that practical considerations alone may lead ultimately to the removal of the station to the other side. It is, however, to my mind a matter for regret that we, as a nation, should allow our decisions to be made on practical grounds alone. The beauty of our city with its great river should surely be a serious consideration, and sufficient to rule out the existence of what is ugly and intolerable; and there are many ways in which practical requirements can be complied with. It seems really a pity that a bridge of any kind should be necessary at this point of the river, as an unbroken sweep between Westminster and Waterloo bridges would give one of the finest and most impressive views to be found in any capital of the world.

Perhaps the most important question to us as architects which is now under the consideration of the Government is that of the housing of the working classes after the war. We know only too well that the conditions under which they live in most cases are indeed deplorable, and any material amelioration has seemed almost hopeless under the complicated conditions and restrictions which have fenced round the problem. Impossible and unnecessary local bye-laws have contended with the economic aspect, and the result has been whole suburbs of dingy and squalid streets of mean and depressing houses, utterly demoralising to their inhabitants and conduced to inefficiency and even crime. Happily it is now recognised that the problem must be faced and solved in some more satisfactory manner, and I am pleased to say that the Local Government Board has approached the Institute, and invited our co-operation in securing the best possible plans for the houses which are to be erected in large numbers immediately after the war. They have placed at our disposal an adequate sum of money for procuring these designs, and we have drawn up a scheme for instituting a series of competitions throughout England and Wales. These are to be conducted by the R.I.B.A. and its Allied Societies, who have entered into the scheme with great enthusiasm, and there is every reason to believe that a very satisfactory result may be arrived at. Many serious problems arise in the preparation of these designs. Not only is it essential that the houses should be healthy and comfortable, sufficiently segregated, pleasant to look at and live outside of as well as inside, and as varied in design as may be practicable, but they must take into account the necessity of the most rigid economy, and the serious shortage of many building materials hitherto regarded as essential. The use of the latter must be minimised, and substitutes designed and arranged for so far as may be possible.

Apart from the question of these competitions the Institute has a very strong committee sitting which is considering how the interests of architects and, as we firmly believe, the interests of the public as well may be best safeguarded in the carrying out of these extensive schemes of housing. We believe that in every scheme it will be in the best interests of the public, as well as of ourselves, that a competent architect should be employed, and that within reasonable limits he should have a free hand, not only in the design of the houses themselves, but in the general lay-out and "town planning" of the area to be dealt with from its initiation. We shall do our best to ensure that this will be regarded as an absolute essential, and I think we have a fair prospect of succeeding.

In view of the lamentable loss of life resulting from air raids over London a sub-committee of the Architects' War Committee has formulated a scheme for the examination and registration of all properties within the area of the London County Council which are suitable or relatively safe as refuges for

the public. This was very carefully drawn up, and suggested the employment of architects under the direction of the District Surveyors, who would be the most competent to undertake such a work. After some trouble in finding out the proper authority, this scheme has been indicated in general terms to Sir Edward Henry, and a reply has been received saying that it is under consideration. A small committee has also just been appointed to investigate the effect of bombs falling on or striking buildings, and valuable information will no doubt be obtained as to the materials and methods of construction best calculated to resist the effect of high explosives.

One of the most valuable features of our constitution is our Allied Societies, not only in the United Kingdom but also in various parts of the Empire. Many of these have their representatives on our Council, and their opinion and advice on the varied questions which arise from time to time are of the greatest value to the interests of the profession as a whole. Practice in the provinces and Dependencies differs in many respects from that in the metropolis, and results in different views as to policy and many larger questions. With a view to reconciling any divergent views which may exist, it has been decided to hold a series of conferences or conversations to deal specially with questions affecting more particularly the Allied Societies, or on which they may have particular views. The first of these has been held here, and the second is to take place at Manchester on the 12th December, with others to follow at different centres as may subsequently be decided. There is no doubt that these meetings will tend to produce harmony and unity of view, and will be most beneficial.

We are proposing to continue our informal conferences this session, and trust they may be as successful and useful as hitherto. It has been felt by some that we should resume our usual custom of regular sessional papers, but after careful consideration we have again decided that it will be best to continue our informal meetings. Eight of these have been arranged for during the session, and very interesting subjects are to be discussed. A full announcement of the dates and subjects will be found in the JOURNAL, and I trust we may have good attendances.

In common with all similar societies, the war has put a severe strain on our finances, and it has been necessary to exercise great care and economy in order to keep down non-essential expenditure. We have, as you know, remitted the subscriptions of all members serving with the Forces—a constantly increasing number; and, in addition to this, we have felt it incumbent upon us to deal generously with many of our members whose practice has ceased, or practically so. It may in the future be necessary to curtail our expenditure still further, and if this should invoke some small measure of sacrifice on the part of our members, I feel sure we may look forward to its being cheerfully submitted to.

In this connection I believe there are a few fortunate members of the profession who have actually benefited by the war in the erection and extension of factories and similar work. To these I should like to speak particularly, reminding them that we have a War Fund, which was established three years ago and which is devoted to finding employment for architects who are in need or distress. This has been administered by the Architects' Benevolent Society, and has done very useful work, but unfortunately its coffers now need replenishing in order to enable them to continue. I have every confidence that those who are able to do so will support so deserving a fund.

Though we are still in the midst of a great war, and it is still impossible to see or foretell the end, and whether it may come soon or may be long deferred, it is very necessary that we should look forward and put our house in order so that we may be ready and prepared for the many serious problems which will confront us when the long looked-for peace arrives, problems which will be entirely new, and in which we shall have no precedent to guide us. How is our profession to be reconstructed so that we may resume normal proceedings in a reasonably favourable condition? How are our men to be released from service in the Army? Are they to have preferential treatment as being the men whose work is urgently required as a first step to reconstituting the building trades? How and when is the present control of building to be relinquished? Is it to be gradual, or will the

coming of peace automatically put an end to it? How is the serious shortage of many building materials to be dealt with, and how is essential and pressing work to obtain the preference? These and many other problems confront us, and with a view to being prepared the Architects' War Committee have established a committee which is now considering all these questions. I have also thought it wise to invite representatives of the Master Builders' Association, the Surveyors' Institution, and, I hope, the Civil Engineers, to join with the Council in a special conference on some of the same questions, and the first of the meetings will be held here on 12th November. I think there is little doubt that such a conference will lead to useful results.

It is very sad to think how many of our most promising young architects have fallen in this terrible war, many of them those whom we looked forward to seeing in the forefront of our profession, a few of them who already had their feet firmly planted on the first steps of the ladder. One is almost tempted to think that Providence in making the selection chose the best, the very best. Though no mere words can in any way console their relatives for their loss, I am speaking on behalf of the entire Institute when I say that, in no mere perfunctory sense, they have our heartfelt sympathy. These men died for their country, and that country is immeasurably the poorer for their loss.

In conclusion, although the prospects for the moment do not appear hopeful, I trust this may be the last Presidential Address which will be made under war conditions, and that when the next session opens we may be busily engaged in meeting the problems of reconstruction, some of which I have indicated.

I am sanguine enough to think that when this time of stress has passed, and peace once more returns to the world, there will be a period of unprecedented activity, and architecture will be afforded opportunities such as have not presented themselves for generations. Larger and broader views will be taken, and it will be our duty and endeavour to ensure that such enterprises as will commemorate this critical period of our history shall be judged by after generations as worthy memorials of the great events which led to their inception.

VOTE OF THANKS TO THE PRESIDENT.

MR. ERNEST NEWTON, A.R.A., *Past President*, who had intended to be present to propose the vote of thanks, was prevented at the last moment from attending. He had, however, committed his remarks to writing, and they were read by the Hon. Secretary as follows:—

It is my pleasant duty to propose a vote of thanks to Mr. Hare for his Address. I should like first of all to thank him for all the kind things he has said about me. I will confess that it was a temptation I found it hard to resist when it was suggested that I should continue in office; but, as my work at the Ministry of Munitions continues to increase in volume and responsibility, I felt that with this call on my time and energies it would not be possible to give the close attention to the affairs of the Institute which the President is bound to give, and, apart from this, I felt too, that after three years of office it would be best for the Institute to have a new President who would come fresh to all the new tasks and difficulties. We have in Mr. Hare a President who has strong and individual views and one who will act vigorously.

I fear that a long and bitter struggle is ahead of us still. It is our duty to give all our strength and service to the prosecution of the war, but that need not

prevent us from thinking of the future; indeed, it is only the hope of a possible future that makes the present bearable. So long, therefore, as it does not diminish our energies for helping on the war we shall be wise to consider plans for reconstruction, and I know that Mr. Hare is fully alive to the immensity of this problem, and that he will see to it that the whole organisation of the Institute is made use of by the authorities who are engaged on these schemes. The Institute, as he has told us in his Address, is already acting in conjunction with the Local Government Board in connection with Housing schemes, but our services would be valuable in many other directions, too.

Mr. President, in proposing this vote of thanks to you, I wish you the fullest success during your Presidency, and the same loyal support that I received during the three anxious years during which I occupied the position which you now hold.

MR. JOHN B. GASS [F.], President of the Manchester Society of Architects, in seconding the Vote of Thanks, said:—

It is with much pleasure that I second the vote of thanks to the President for his practical address, which has embraced so many of the activities of the

Institute during the war-time and looks with cheerful optimism to the future. It is also a pleasure to congratulate Mr. Hare on his election to the highest honour to which his co-workers in our great profession can elect any of their professional brethren. Everyone who is enthusiastic in his work values, and has a right to value, the professional recognition of his fellow-workers: to have achieved that recognition and to take a place among the immortals of our Royal Institute is a just matter for pride. The success of Mr. Hare's career has made him of interest to the architects in the Allied Societies which I have the honour to represent, and to whom so many men are only known by their work and their names. Every successful architect's career has in it an element of romance: with Mr. Hare this is exemplified and the advantages of the opportunities of competitions justified. Of necessity architects are self-made men; there is no royal road to success in the profession of architecture, and, however gifted a man may be, it is ever a process of effort and of labour stern and true. The same qualities which have made for success in his professional life are necessary in the duties of the high position to which he has been elected, and as we believe his hand has never faltered from its best, so we have high hopes for his work as President of the Institute. He is in the plenitude of his powers, and having ripened experience in the world of affairs can with confidence face the strenuous time to which he has been called. In all the Allied Societies there has been much appreciation evoked by the self-denying work of Mr. Newton during his term of office and I cordially endorse Mr. Hare's eulogy.

There never was a time when it was more necessary than now that the Institute should hold such a place in our national life as will lead to a truer recognition of the position architects should hold in the community. It sounds strange that in this, the eighty-fourth session of the Royal Institute of British Architects, our President has to state that the special qualifications of architects have been so imperfectly understood that we have not been allowed to serve the national needs, though our services were, and are, so necessary in the national interests. But it is none the less true. If it is the education of the public which is at fault, and if, as he considers, that education will still take a generation or two at the least, we should use every endeavour to see a start made with the education at once, or it will probably be the one hundred and fiftieth session or thereabouts before there will be any practical effect observable. Those of our young men who are fighting our battles at the front will be justified in thinking we have not been faithful to our professional trust if we continue to act as though we were satisfied that neither for ourselves, nor their generation, or even the generation to come, is anything to be expected for architects except such unsatisfactory treatment as has been meted out to our profession in the greatest crisis of the country's life. I hope for a divine discontent

with this position from Mr. Hare, and all who control our present destinies, both in the national interests and for the sake of the great profession to which it is our privilege to belong.

As architects are so directly affected by the supply of materials for building after the war, it would have been of advantage if the Institute had been asked to nominate a representative on the Committee by the Minister of Reconstruction—the names of the members were published this morning.

But, Gentlemen, we are heartened and encouraged at the very beginning of Mr. Hare's presidency and through the efforts of Mr. Newton by the action of the Local Government Board in having invited the co-operation of the Institute, and placed a sufficient sum at its disposal, to secure the best possible plans to meet one of the greatest problems of our times, in the satisfactory housing of the people. It is only by the profession putting forth the best efforts, and the members throughout the whole of the country proving themselves worthy of the confidence shown to them through the Institute, that the position we claim for architects will be justified. We all hope that this will obtain in a large measure, and that success will crown the efforts so that in future work, not only the Local Government Board, but all Government Departments; the Municipalities and the Local Authorities generally, will feel justified in seeking the co-operation of the Institute and the Allied Societies in the many building schemes the future will bring for them. It is good to hear that Mr. Hare thinks there is a fair prospect of the success of the efforts being made to safeguard the national interests by the employment of competent architects by the authorities in the carrying out of the Housing Schemes for the people. If there had only been a National Register of Qualified Architects how much stronger our professional position would have been now!

Reference has been made to the importance of the active entry of the United States into the war on the only side in which such entry was possible. The cordial greetings sent by this Institute to our brother architects there were echoed in the hearts of every member and expressed the feelings of each one. I have ever in remembrance the extraordinary kindness, consideration and courtesy of the American architects I had the honour of meeting when travelling in their country as holder of the Godwin Bursary in the too long ago; that remembrance is kept vivid by friendships I made at that time and which I actively retain to this day. We in the north will welcome any opportunity of showing to the American architects, who are helping to bear the burden of war with our young men, that we are truly brothers—brothers in our Art as our nations are now brothers in arms to victory for freedom and right.

The activity of the Institute in regard to Charing Cross Railway Bridge has the full support of the whole profession and is a mark of the practical interest in public matters we are all so glad to see. Manches-

ter and all the other great centres have their own problems. My Society is using every means in its power to carry out one of the main principles of the Charter of the Institute in aiming for "the public improvement and embellishment of our towns and cities."

The Allied Societies were never more loyal to the Institute than at the present time, nor ever was there more activity than now, or greater anxiety to help and strengthen the Institute and to make it really representative of the whole profession. There has been the greatest consideration given to the views of the Allied Societies by the Institute, but it is inevitable that with the centre in London the interest and point of view of the London members should heretofore have had the greatest weight in the Councils of the Institute, and particularly as there perhaps was not opportunity for full expression of the Allied Societies' views. The first Conference of the strong Committee of the Institute and the Presidents of all the Allied Societies in Britain, over which Mr. Hare so ably presided as one of his first duties, gives great hope for the future, though, of course, we cannot expect to have adjusted ourselves yet, and we have not done so, but we have all at heart the greatest good for the profession as a whole.

Manchester is looking forward to welcoming the second Conference on December 12th, and it is hoped that the London members will find themselves able to attend in strength. The five resolutions sent by the Allied Societies' Conference will still be under discussion and it will be of great advantage if the scope could be extended to embrace the questions which have been so long in evidence, as the New Charter, with the ever-recurring Registration problem, which has been more or less active during practically the whole of my life. It is perhaps from this long drawn out discussion that our President has taken his idea of a generation or two at least still being required to educate the public as to the true position of architects in our national life. There are many questions which might with advantage be mentioned at these informal conversations, as Mr. Hare so aptly describes them. Views could be exchanged on some of the after-the-war problems—education, form of contract, scale of charges, the question of expert advice and other matters in which the whole profession is much interested, and the judgment and experience of the senior members will be of advantage.

Events are moving rapidly in our national life—perhaps more rapidly than those outside our great industrial centres realise. As an Institute representative of our great profession we cannot stand idly by or "too late" will be written over the portals of the strong organisation we ought to be. Present problems demand our immediate attention. After-the-war problems will occupy much time and thought for us all. While not losing sight of the things of to-day we must prepare for the time after the war, making our War Memorial the helping of the position and

interests of our profession, both for the present and the future, and doing all we can for the young men who are spared to us and who retain sufficient enthusiasm for the profession of architecture to return to it. I pray there may be many such. In Mr. Hare I look forward to a President who will cheerfully help to weave into these young men's lives their new romances for the future, and, so far as possible, help them to opportunities in which they may in some measure materialise their dreams of a world to be.

I very cordially second the resolution.

MR. T. E. ECCLES [F.]: I do not know whether the Liverpool Society is represented here. If not, I shall be glad if I may say a word in support of my brother from Manchester to assure the President that he will receive every support that Liverpool can possibly give him. I know he has the goodwill of all the members of our Society. We have a great regard for his work, and we hope that he will have health and strength to carry on the position to which he has been called. I have great pleasure in adding my tribute.

MR. H. W. WILLS [F.]: I am extremely glad to see Mr. Hare in the chair, for I have known him a long term of years, and have been beaten by him in competitions more times than I can remember; and the cordial friendship remains which is the result of unlimited drubbings. We have all appreciated the Address very greatly, but there was one point which was only slightly touched upon, but which I feel, personally, overshadows every other question, with the exception, of course, of the war. I refer to the question of the restoration of private enterprise after the war, and the abolition of permits. Mr. Hare has mentioned that this subject will form part of the deliberations of the Committee, but I think that the general body of the Institute should express some clear views on it. I have accordingly handed in a resolution asking for the calling of a Special Meeting to consider the question of building after the war, with special reference to the question of permits.

PROFESSOR BERESFORD PITE [F.]: May I join in the congratulations and thank the President for his excellent business-like address, and the good news, in many particulars, which it conveys to the Institute? But may we also express the hope that in this important era our outlook should be something more than that of a professional society charged with professional interests? Let us seek to remember that as architects we are interpreting a phase of public life and work through the intellectual exercises of our own minds. If art is a form of intellectual expression, the building of the nation expresses the intellect of the architect; and the cultivation of the architect's aspirations should surely extend beyond those matters which we ordinarily call professional. The war has produced considerable discussion on reconstruction, and on the economics of building, and all the practical aspects of our work. It has produced a very large realisation of the services which art renders to life. It has brought us face

VOTE OF THANKS TO THE PRESIDENT

to face with a very real demand for the expression of the highest ideals of the living, as well as the hopes of those that are dead. And it certainly comes to us as architects to contemplate very seriously and very earnestly the great burden that lies upon us as the interpreters of this deep and solemn phase of national life at this moment in our work. The difficulty, of course, of discussing this question in a few words is very great. All that one can do is to call attention to the fact that what is probably the most solemn and the most earnest phase in our art—viz., memorials by the living to the dead, memorials which will embody the greatest ideals and the greatest efforts and the greatest hopes of our race—falls to our hands to materialise. It seems to me that there is no matter more pressing upon the attention of the architect who is in earnest and upon the student of architecture than that at this moment. The world judges us, employs us and uses us as it thinks best; and its wisdom in that matter is arrived at by our own efforts, our own promises and performances. The world may cease to look upon us as a great profession; it may be employed by the nation, or it may not; without it the world can get along perfectly well. But in memorial art the world will look to us for inspiration and for guidance; it will look to us for poetry, for solemnity of thought, expressed in building. Now, though the subject is difficult, the abundance of material at our disposal is large. We can go back and begin with the "In Memoriam Great Pyramid"; we can come to the great ornamental works of the world's history; but we are compelled to ask ourselves the plain question: Are we here, representing probably one of the greatest powers which the world has created for the purpose of the defence of civilisation, are we prepared to embody in the building art, as occasion demands, a sufficient expression of our artistic hope and our intellectual appreciation, as architects, of our wonderful profession? What the Institute can do in this matter is not easy, in a hurry, to decide: I think I will venture to commend it as a subject to the Council that we have, in our collections and in our Library, a mass of illustrative material, that we have the opportunity of inviting the attention of designers and students to the subject. We as an Institute can do that firmly and successfully, tentatively and experimentally, and, I hope, ultimately with profit to the community. And if the nation will recall the position of the national memorials after the last great war a century ago, it will remember that the Nelson memorial was abandoned, practically, for a quarter of a century, and ultimately fell to the hands of a private Committee, who erected the great Column which London cannot do without, and which London will have to surpass when this war is over. The nation will also remember that the name "Waterloo Bridge" was tacked on to a bridge which had been already designed, to give to it the nature of a war memorial. A hundred years ago problems were extant which we have had to face, and which I do not know that we have faced alto-

gether satisfactorily. On the lines of the past, on the lines of history, and of recent history, and on the possibility of competitive designs or by public invitation of some sort, we must arouse sufficient interest in this great service and in this great work of history. It is the one solace which architects can offer to history in its troubles and in its hopes. I hope the Council will consider that merely serving the professional interest of the architect does not completely fulfil the high objects which exist. And with that hope I desire to wish you, Sir, most cordially, every success in your career as President of the Institute, to which your talents and friendship, and the kindness which you have exercised in connection with the work of the Institute for so many years, have brought you.

MR. FRANCIS HOOPER [F.] : Having had the pleasure of working under you, Sir, in the Architectural Association when you were President of that body, I am sure I may say that every member of the Association will congratulate you on the high position to which you have attained in the Royal Institute of British Architects. At a previous meeting I raised a question, in the interests of the younger members of the profession, which had reference to the Tribunal before which they had to state their cases in connection with military service. I am still of opinion that it is regrettable that our young men should have to submit their cases to men who, by their occupation, are not necessarily in sympathy with architecture or with the work of architects. But the answer which has been printed in the JOURNAL records that practically every man in the profession eligible for military service is now with the Colours. If that is the case, we may indeed be proud that our young men should have staked their all in this great cause. But it involves a responsibility on us who remain at home, and again I rise on behalf of the young men who are fighting our battles. A Committee has been nominated by the Ministry of Reconstruction to consider the source of supplies for a great scheme of housing after the war, and it seems possible that Committees of architects in every county might be established to further this scheme and to place their services, as experts, at the disposal of the State for the purpose of securing the designs which the President has indicated are already being anticipated for local requirements. I would now plead that the Council should register the young architects serving with the Colours, and endeavour to secure employment for them in the supervision of this responsible work to be carried out after the war. And if, in conjunction with this, we could induce the authorities to give preference to those in the building crafts who have served their country in the war, I believe we should be doing a thing which society would recognise as patriotic.

THE PRESIDENT, Mr. ... said: I have to thank the proposer ... and those who have spoken in support, for the kind manner in which they have alluded to my Address and to my own personal qualifications for filling this Chair. I can only

say that I should have considerable doubts as to my ability to fulfil their expectations if I were not sure of the cordial and unanimous support of the Council and the members of the Institute generally. With regard to Professor Beresford Pite's remarks, we all feel that there is a larger view of our responsibilities as architects than that merely of our professional interests. We realise that there will be great opportunities for the exercise of our art in the future, and that serious responsibility will attach to us in taking advantage of those opportunities—opportunities more serious and onerous, probably, than have ever before fallen to the lot of architects. With regard to the matter Mr. Hooper mentioned, I believe that Mr. Newton during his Presidency went carefully into this question of architects being represented on the Tribunals to see if something could be done to meet the objections Mr. Hooper has alluded to, and, as far as I remember, the conclusion come to was that it was too late to do anything effectual, because practically every architect who was eligible had already taken his place in the ranks of those who were defending the country. I am sure that the other point he made about ensuring that the architects who are now serving abroad shall have every opportunity of being employed on the housing and other schemes which may arise in the future will be attended to, and that the Committees who are considering reconstruction will make that one of their first considerations. Another point we have in mind to ensure is that architects may have a preference in demobilisation, so that they may have the opportunity of resuming the exercise of their profession at the earliest moment. We consider that any reconstruction or reconstitution of the building trades will be much more difficult if architects are not given that preference, because it is they who will prepare the schemes which will occupy the building profession. That is therefore one of the points which we have specially under consideration.

REVIEWS.

RECONSTRUCTION.

Industrial Reconstruction : A Symposium on the Situation after the War and how to meet it. Edited by Hunley Carter. 8o. Lond. 6s. net. [T. Fisher Unwin, Ltd., Adelphi Terrace.]

Most of the matter contained in this volume first appeared serially in *The New Age*. It originated in enquiries addressed to many distinguished men and women upon pre-war and post-war industrial conditions. The replies have been arranged in groups representing the State, capital, labour, economic, and general, and these have been again minutely divided and subdivided.

Although architecture has not been given a separate place, Mr. Raffles Davison, Mr. C. R. Ashbee, and Mr. A. J. Penty discourse under the heading, "Art and Craft," and the late L. March Phillipps on Ästhetic.

To architects the outward and visible manifestations of Industrialism as exhibited in buildings are the more interesting and profitable study, representing as they do a permanent record of the national character.

The older industrial towns are not generally pleasant places, nor can they be considered as worthy of their industrial importance or our national greatness. They bear silent witness to mistaken views and an ungenerous and too commercial conception. Material considerations alone prevailed in their creation, and the result is neither creditable to the owners nor to those architects concerned. Ill-considered town planning, cramped and sunless streets, prison-like factories, gloomy tenements produce an environment which breeds nothing but misery and discontent. But human beings are endowed with minds as well as bodies, and to supply the people with the wherewithal for bodily sustenance is of little avail if the soul is starved. The sufferer may not realise the cause of his infirmity, but the evils resulting are none the less apparent and difficult to cure.

What a contrast is the enlightenment evidenced by places such as Bournville and Port Sunlight ! These towns show appreciation of the dual needs of human beings ; they serve as guide-posts to those who desire to see improvement in the welfare of the people.

Of hopeful augury and manifestations of growing wealth and strength are the palatial buildings erected of recent years by the labouring classes for administrative purposes. The increasing number of stores and factories established on co-operative principles shows the vast potentialities that result from unified effort, whilst the co-partnership dwellings further reflect the people's aspirations. Such co-operation, free as it is from bureaucratic methods, deserves success, and when the first material needs are met, it is to be hoped that the claims of culture will be considered. In ancient Rome the magnificent baths and all that they comprised were not considered too great an offering to the people ; how much better would it be if even greater monuments, centres of all the arts of Peace, were erected by the people themselves without supinely appealing to the State for aid.

Another matter of great import to the nation is the question of the hours of labour. Reasonable opportunities of leisure to promote physical and mental culture are essential to the worthy development of the race. The republics of ancient Greece could never have reached their high level of attainment had it not been for the leisure the citizens enjoyed. When the burden of the nation's toil was borne by helots, the people were afforded time and opportunity to cultivate the virtues of true citizenship. Sir Robert Hadfield in this volume supplies some interesting information concerning the success attending the introduction of the eight-hour day, which was instituted by his firm in 1894 ; and Lord Leverhulme's proposal of six hours' daily labour does not seem Utopian in view of the colossal output now made possible by machinery. The general use of automatic

control should gradually lead to a reduction of the dull routine of hours spent in tending machinery, and machinery should increasingly serve the function formerly imposed on a degraded proletariat or slaves.

Though some individual views are given in this work on the industrial position, the labour and socialist leaders have as a body declined to "commit themselves" to an expression of opinion. Their reticence is probably wise, as the effect of the influx of women into the labour world creates a problem which has still to be solved, and on this subject women will have something to say; whilst the millions defending our country on the battle-fields of Europe, Asia, and Africa will exercise a great, if not preponderating influence on the policy of the future. Architects and architectural students must not lose touch with these vital problems of our times.

HERBERT WIGGLESWORTH [F.]

AN ARCHITECT NOVELIST.

IT is a relief to turn for a moment from the persistent anxieties of war to the lighter side of affairs, and one may be excused therefore in making brief reference to an enterprise of a member of the R.I.B.A. Messrs. Nisbet have recently published a humorous novel, entitled *Thomas*, from the pen of H. B. Creswell [F.]. The quality of the book is such that there is little doubt as to its success or that it marks down the author as an accomplished wit. Mr. Creswell needs no introduction to members of the Institute. Trenchant, incisive expression has always stamped his contributions to the *A.A. Journal*, the *Architectural Review*, and other publications. These have invariably held the quality of sincerity, yet frequently, where necessary, the cloak of satire. As an architect, many members will be familiar with his work in large engineering buildings at Queensferry, Chester, or in domestic work in the Midland Counties, and again in Colonial structures for the Crown Agents for the Colonies, or as Inspector to the Ministry of Munitions.

Mr. Creswell has for some years contributed to *Punch*, so that one feels on safe and familiar ground in venturing into his first essay in books. Thomas is an attractive, roaming character who has reached the period for "settling down," and is here recording a phase in that process—a round of holiday visits to his friends. The variety of original incidents is pleasantly tempered by romance, while deep sentiment, flashed with splendid humour, illuminates the situations into which the social circumstances have led this unsettled person. Not the least engaging occasion is the building of the house for which plans have been prepared by "The Stores."

It is to be hoped that the author will have opportunities of giving further evidence of a great gift for the creation and expression of humorous sentiment.

W. A. FORSYTH [F.]

EDWARD GARRATT, *Licentiate, Pugin Student.*

THE anomaly of Fate in this great world war is strong, and it is a tremendous chapter that could be written of its tragic individual consequences, of its cruel toll, amongst the great civilian army doing battle for civilisation on the plains of Flanders and Northern France, of many of the brightest and most gifted sons of our land. All those who have been called upon to take their part in this gigantic struggle to perpetuate human rights and the liberties of nationalities, great and small, must be assumed to have taken, or to be taking, an equal share, and it is not for others to discriminate as to the cause which, at the call of duty, compels one man to undergo the supreme ordeal earlier than another. Suffice it to say that Edward Garratt met and made the great sacrifice in less than one month of his facing the enemy, and within six months of his joining the Army. It may be truly said of him that no man accepted the supreme risk more dutifully and cheerfully than he. Though of refined nervous temperament, common to many of our bravest, he was yet possessed of determined personal courage, which we may be sure would persist to the end. At once perceiving the great issues involved by Great Britain entering the war, as if in recognition of what was to come, Garratt early joined the National Volunteers, and acquired that preliminary training which was to better fit him for entering the King's Forces later, and his calling up was only delayed, not from personal motives, but because of the important undertaking at Coventry, upon which all his concern and aesthetic faculties were concentrated towards its fitting conclusion, and which he was carrying out in conjunction with his friend and partner, Mr. Simister. That fine work, indigenous to its architectural surroundings, might well stand as a fitting tribute to his memory, as indeed it will remain a lasting memorial to his ability, of promise of what might have followed from the same hand and effort, though of tragic silence to a most promising career now, unhappily, prematurely closed. Knowing his sentiments, one feels certain that the only satisfying compensation to him would be in the end he has met with in his country's cause. What more can mortal give to the race from which he sprang?

Edward Garratt was born at Darlaston, South Staffordshire, in 1880. He received his early education at Wednesbury, and afterwards at Walsall, and, early disclosing abilities towards drawing and design, he was articled in due course to Messrs. Hickton & Farmer, of the latter town. Like the enthusiast he was in everything he undertook, young Garratt supplemented his professional training with that firm by attending the art and architectural classes at the Walsall School of Art, where for three consecutive years he was the most successful student, carrying off the chief honours given there and a special prize presented to him by the Earl of Bradford. In 1900 he came to Birmingham, and entering the office of Messrs.

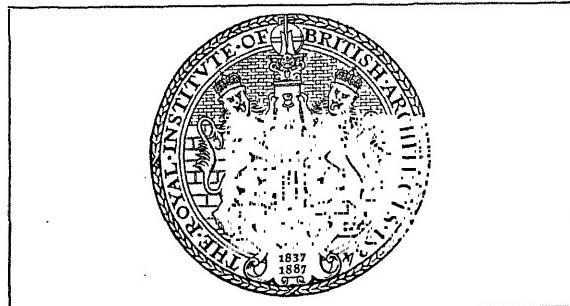
Essex, Nicol & Goodman, he assisted that firm for several years. Joining the Birmingham Architectural Association in 1902, he won the Travelling Studentship of that Association the following year, and, profiting by the chance this gave him of further evidencing his ability in architectural sketching and measured drawings, young Garratt set his ambition upon winning the Pugin Studentship, and working assiduously on his task, his acquired practical insight and fine draughtsmanship secured him that honour in 1905. Garratt's valuable services were henceforth in demand, and he assisted various architects in Birmingham on general and competitive architectural work, where he further acquired much practical experience.

It was about this time that the late Mr. B. T. Batsford was contemplating the publication of a monumental work by Messrs. Garner & Stratton upon domestic architectural examples of the Tudor period, and looking around for a type of illustrator whose work would fittingly and suitably fulfil his expectations, his choice fell upon Edward Garratt, and an engagement followed which proved highly satisfactory to all concerned in its production. This fine work alone is a permanent testimony to Garratt's powers as an architectural draughtsman. In 1910, Garratt joined his friend, Mr. H. W. Simister, in practice at Birmingham. The mutual sympathy and identity of aims existing between them could not but augur well for successful collaboration. Enthusiasts both, keen and hard workers, with the experience that comes to observant minds, they were not content to sit and wait for commissions. Competition after competition was entered upon, and the faculty for planning and design they together brought to bear upon the problems they attempted compelled the respect of their competitors. Their success was well above the average, and amongst the larger schemes they entered for they carried the first position, for the Stoke Town Hall, Coventry Council Buildings, and the proposed new Hostel to Exeter University, whilst their designs were one of three sets selected in the final competition for the Birmingham Blue Coat School. At the time of Garratt's call to the Colours he and his partner were engaged on a considerable amount of new and extended munition factory work, canteens, etc. To an observant but disinterested outsider no partnership could have been productive of greater accord and singleness of purpose.

It has been mentioned that Garratt's susceptibilities were of a refined type, and his nervous system was strung to the verge of hesitation before answering a question or giving a decision. But once having arrived at a conclusion no one could show greater persistency and courage in upholding it. His temperament was such that he would suffer an injury himself rather than give pain to others, and in all things his judgment was most fair and equitable. Free and easy in disposition, he was an enjoyable companion and a warm-hearted and generous friend, and in the Midland area, at least, his passing will be a blow to his many friends and a decided loss to the profession. His fine

comradeship added to his sterling abilities will, however, assure his being long remembered by the many who knew and respected him.

WILLIAM H. ASHFORD [A.]



9 CONDUIT STREET, LONDON, W., 17th November, 1917.

CHRONICLE.

The R.I.B.A. Record of Honour : Forty-ninth List.

Killed in Action.

ATKINSON, Lance-Corp. BEAUMONT E., Middlesex Regiment, *Licentiate*. Killed in action on 23rd September.

TUCKER, ARTHUR HAINES, Royal Sussex Regiment, *Licentiate*. Killed in action.

BRUNELLE, Lieut. (Acting Captain) HENRY CARLETON, Lancashire Fusiliers, *Probationer*. Killed in action on 9th October.

Lieut. Brundle was killed while leading his company into the Bulgar trenches. He was a pupil of Mr. A. Heron Ryan-Tenison [F], who writes: "I have lost a faithful friend and a man I could trust." His Colonel and brother officers and chaplain speak equally highly of him.

Members' Sons.

ADAMS, Lieut. H. F. R., R.F.A. Killed in action. Aged twenty. Son of Mr. H. Percy Adams [F].

Mr. Adams's elder son, Captain Cecil Adams, R.E., one of the first to get a Military Cross for gallantry in the field, was badly shell-shocked and is now ~~in~~ ^{receiving} the appointment of military instructor to the ~~...~~ ^{the} Military Academy at Ontario.

CROW, Private ARTHUR ARNOLD, Essex Regiment, formerly of the Artists' Corps and Captain of the Loyal North Lancashire Regiment. Killed in action. Elder son of Mr. Arthur Crow [F].

Captain Crow in July, 1916, had to resign his commission in the Loyal North Lancashires on account of ill-health. Recovering, he found he could not regain his rank without abandoning the prospect of foreign service. He therefore preferred to enlist in the Essex Regiment as a private.

Military Honours.

HOWITT, Lieut.-Col. T. CECIL, Leicestershire Regiment [Associate, 1911], has been awarded the D.S.O.

The official report states:—"In Flanders, early in October, Major Howitt commanded a battalion in the field with the utmost gallantry. Supporting the front-

line troops his battalion assisted in repulsing five hostile counter-attacks. He then took over command of another battalion in addition and held on to the position until relieved. He was very slightly wounded on the day prior to the attack." He has since been promoted Lieutenant-Colonel.

WOOLLATT, 2nd Lieut. JOHN, R.E., of Beeston [Associate, 1910]. Awarded the Military Cross.

2nd Lieut. Woollatt joined the Royal Engineers in June, 1916, and, after training at Newark, received his commission and went to France in December, 1916, where he was attached to the 79th Field Company. He was severely wounded at Ypres on 8th August, 1917, and is now in Horton, County of London, War Hospital.

Serving with the Forces.

Intimation has been received that the following are serving, bringing the total to 78 Fellows, 533 Associates, 331 Licentiates, and 299 Students :—

FELLOW.

Allen, J. Gordon : 2nd Lieut., R.E. (from the Artists').

ASSOCIATE.

Jenkins, W. D. : Serg.-Major, R.E.

LICENTIATE.

Finn, H. R. : Lieut., R.E. Joined as Sapper in July, 1916 ; given commission in January, 1917.

STUDENT.

Pite, Horace V. W. (son of Mr. W. A. Pite [F.]). Hampshire Regiment.

Promotions.

Quirke, Lieut. W. Dathy [A.], to Captain, R.E.
Solomon, H. [A.], to 2nd Lieut., R.E.

An Architect Inventor of a Counter to Submarines.

Deserving place in this record is the name of Mr. W. Henry Bailey, *Licentiate*, of Manchester, who claims to have solved the problem of destroying the immunity of submarines to attack under water by his invention of "altered and adapted sterns to submarine destroyers, together with submersible dirigent trailing torpedoes or mines with discs and necessary mechanism or appliances." In honour of his invention, which was inspired as a result of the *Lusitania* atrocity, Mr. Bailey has been elected a Fellow of the Institute of Inventors.

Proposed National War Museum.

The President has received the following reply to his letter to the Prime Minister on the above subject [see JOURNAL for September] :—

H.M. Office of Works, 24th September, 1917.

SIR,—Your letter of the 14th inst., addressed to the Prime Minister, having been forwarded to the First Commissioner of Works, I am directed by Sir Alfred Mond to say that it is, as yet, premature to come to any decision on the question of the erection of the building to house the National War Museum, but your request will be kept in mind when circumstances warrant the taking of definite action. The First Commissioner will then be pleased to receive a Deputation from the Council of the Royal Institute of British Architects.—Yours faithfully,

ERNEST H. BRIGHT.

Housing of the Working Classes in England and Wales Cottage Competitions.

The Local Government Board, being desirous of obtaining designs for cottages suitable for the housing of the working classes, have placed at the disposal of the Royal Institute of British Architects a sum of money for this purpose, and it has been decided to invite the Allied Societies to assist in obtaining designs under the following conditions :—

For the purpose of the competition, the country is divided into six areas, comprising the districts of the Allied Societies and the R.I.B.A., as follows :—

I. *Northern Area.*—Northern Architectural Association, Leeds and West Yorkshire Architectural Society, York and East Yorkshire Architectural Society, and Sheffield, South Yorkshire and District Society of Architects and Surveyors.

II. *Manchester and Liverpool Area.*—Manchester Society of Architects and Liverpool Architectural Society.

III. *Midland Area.*—Birmingham Architectural Association, Nottingham and Derby Architectural Society, Leicester and Leicestershire Society of Architects, and Northamptonshire Association of Architects.

IV. *South Wales Area.*—South Wales Institute of Architects.

V. *South-West Area.*—Devon and Exeter Architectural Society, Bristol Society of Architects, and Hampshire and Isle of Wight Association of Architects.

VI. *Home Counties Area.*—Royal Institute of British Architects.

CONDITIONS.

VI.—HOME COUNTIES AREA.

1. Pursuant to the scheme above described, the Royal Institute of British Architects invites designs for cottages in accordance with the instructions and particulars stated below. The competition is open to any British subject.

2. The designs are to be suitable for erection in urban and rural districts in the counties of Norfolk, Suffolk, Cambridge, Huntingdon, Middlesex, Essex, Hertfordshire, Bedfordshire, Oxfordshire, Buckinghamshire, Berkshire, Surrey, Sussex, and Kent.

3. The designs are to include four classes or types of cottages as described below, and premiums are offered as follows :—

	1st	2nd
	£	£
Class A ...	100	50
" B ...	100	50
" C ...	100	50
" D ...	50	30

4. The adjudication will be made by a Committee of not less than three architects appointed by the Royal Institute of British Architects, and their judgment is to be accepted as final.

5. It is to be understood by competitors that the payment of the premiums conveys the absolute possession of the designs, including all copyright or other rights, and that the promoters will be at liberty to make any use whatever of the designs, and to publish them with the names and addresses of the authors. The promoters reserve the right to exhibit publicly, after the award, all or any of the designs as they may think best with the names of the authors attached. No architect shall compete in more than one area.

6. Designs are to be prepared strictly in accordance with the instructions below, and any design which does not so conform will be excluded. On this point the Committee of Selection are to be the sole judges.

7. Designs are to be delivered carriage paid to the Secretary R.I.B.A., 9 Conduit Street, Regent Street, London, W. 1, on or before the 13th January, 1918.

8. The unsuccessful designs will be returned to the authors carriage paid as soon as practicable.

9. Any questions must be addressed to the Secretary of the Royal Institute of British Architects, 9 Conduit Street, W. 1, on or before the 27th November. Replies will be issued to all competitors as early as possible.

10. Each set of designs is to be accompanied by a sealed envelope containing the name and address of the author.

11. No motto or distinguishing mark is to be put on the drawings.

12. Every care will be taken of the drawings, but the promoters will not be responsible for any damage they may sustain, or for their loss.

13. Designs may be submitted in any or all of the classes as follows :—

CLASS A.—Living room, scullery, &c., and three bedrooms.

CLASS B.—Living room, parlour, scullery, &c., and three bedrooms.

CLASS C.—Living room, parlour, scullery, &c., and two bedrooms.

All the above to be treated as two stories.

CLASS D.—Variations of either A, B, and C planned entirely or mainly on one floor. Larder, fuel store, w.c. or e.c., cupboards, &c., to be included.

14. In all cases additions are to be avoided or minimised as much as possible.

15. All houses are to be provided with a fixed bath and a cold-water supply. Arrangements for the supply of hot water are to be indicated on the plan.

16. Positions of all principal pieces of furniture, such as dressers, tables, beds, &c., together with opening of doors, the points of the compass, and dimensions of rooms, are to be indicated on the plan.

17. In Classes A, B, and C several houses must be shown as a block, of which three are to be planned in detail, the others in outline only. Of these three, one is to be an end or semi-detached house; another a terrace house or one between party walls with narrow frontage (not exceeding 18 feet), and a third with wide frontage. The depth of the site is left to the discretion of the architect, and the site may be regarded as level.

18. The general height of rooms is to be not less than 8 feet, the floor area of the principal bedroom to be not less than 160 feet, and no bedroom to be less than 70 feet.

19. The plans may be prepared without regard to any existing by-laws or local Act provisions, the object being to show the best types possible if existing restrictions are removed.

20. Each design is to show plans of each floor, one section indicating the staircase, and two elevations, and to be drawn to a scale of $\frac{1}{8}$ th of an inch to the foot on half double-elephant sheets. No other drawings to be submitted.

21. All drawings are to be in line only without washes, with the walls blacked in, and are to be sent flat.

22. The designs in each of the Classes A, B, C, and D are to be on separate sheets. Notes of materials, &c., are to be printed on the drawings, together with the cubic contents of each house measured from one foot below the floor to half way up the roof. No separate report is necessary.

23. Wherever possible, materials of the locality, if reasonably obtainable, should be specified, but as there exists at the present time a serious shortage of certain materials, competitors are invited to consider and suggest the substitution of others with a view to facilitating and cheapening construction. It is desired that strict economy be exercised throughout the design, and this will be an important consideration in making the awards.

Types of Small Dwelling-houses.

His Majesty's Stationery Office, Edinburgh, has just published, at the price of 1s. net, the interesting and extremely valuable Special Report [Cd. 8760], with relative specifications and plans, prepared by

Mr. John Wilson [F.J.], Architectural Inspector of the Local Government Board for Scotland, on the Design, Construction, and Materials of Various Types of Small Dwelling-Houses in Scotland. The Report forms part of the Appendices to the Evidence of the Royal Commission on Housing in Scotland. It is stated in a prefatory note that the evidence placed before the Commission and the remainder of the Appendices will not be published till later, but that meantime it is thought desirable to issue this Report separately, as the Commission consider that it will be of assistance to Local Authorities and others preparing post-war housing schemes.

Mr. Wilson's instructions as Special Investigator were to inquire and report "on different types of houses that are being built in selected parts of Scotland, as regards their accommodation, materials of construction, methods of construction, cost of construction, including architects' fees, cost of land, cost of making roads, etc.; to report on the particular type that may be suitable to meet the needs of local circumstances, and to suggest in what respects the cost of erection of houses may be cheapened, and to what extent, if any, the statutory requirements and the provisions of local bye-laws or regulations might be relaxed or modified." The general design and type of houses are shown in a series of twelve plans, with elevations and sections, appended to the Report. Of the twelve plans, five illustrate two-story blocks, three illustrate blocks of four. One shows a block of four double houses for farm-servants, another a house for smallholders and crofters, and two illustrate a row of six cottages (a hostel). The Appendices include a table showing the dimensions and superficial area of the apartments in all the types, except the special houses for farm-servants; information in tabular form respecting building materials used and the cost of different types of houses in various districts; and specifications and schedules of quantities of two of the types described, which include the majority of the building materials used throughout the country.

Competition for Memorial Plaque.

The Government is promoting a Competition for Designs for a Memorial Plaque to be presented to the next-of-kin of members of the Naval and Military Forces who have fallen in the war. Prizes to the amount of £500 will be awarded (in proportions to be decided later) for a limited number of the most successful models. All competitors must be British-born subjects.

The memorial is to take the form of a bronze plaque, with an area of as near as possible 18 square inches; e.g., it may be a circle of $4\frac{1}{2}$ inches in diameter, or a square of $4\frac{1}{4}$ inches, or a rectangle of 5 by $3\frac{1}{2}$ inches. The plaque is to be produced by casting from a model, which should be finished with precision. All designs submitted must be actual models in relief in wax or plaster of the size indicated above. No competitor may submit more than two models. The design should comprehend a subject and a brief inscription.

It is suggested that some symbolical figure subject should be chosen, but the following inscription has been decided upon: *He Died for Freedom and Honour*, and must form part of the design.

Since the surname of the person commemorated and the initials of his Christian names are to be engraved on the

plaque, the design should be arranged so as to leave space for the name within the dimensions mentioned above. In the case of a rectangular design, this space should be left at the base : if the design is circular, a margin surrounding or partially surrounding it should be left free. The design should be essentially simple and easily intelligible.

Models must be delivered to the Director, National Gallery, Trafalgar Square, W.C., not later than 31st December. Full particulars of the Competition may be obtained on application in writing to the Secretary, War Office, or to the Secretary, Admiralty.

Building Materials after the War.

The Minister of Reconstruction, after consultation with the President of the Local Government Board and the Secretary for Scotland, has appointed the following committee to consider and report on the question of the supply of building materials after the war : Mr. James Carmichael, J.P., vice-chairman of the Munitions Works Board (chairman); Sir John Tudor Walters, M.P.; Mr. A. Shirley Benn, M.P.; Mr. J. Storrs, and Mr. J. Walker Smith, M.I.C.E. The terms of reference are as follows :—

(1) To inquire into the extent of the probable demand for building material for all purposes which will arise in this country during the transition period, and the extent of the available supply and form of such material.

(2) To inquire how far the quantities of material now available are capable of increase ; what are the difficulties in increasing them, and how these difficulties can be removed ; and to report to what extent an increase in production will affect the price of the materials.

(3) In the event of the supply of material or labour being insufficient to fulfil the total building demand, to consider the principles and method by which the priority of various claims should be settled ; and to report what steps are necessary to ensure that the manufacture of the materials, so far as they are at present inadequate, shall be extended in time to secure sufficient quantities for use when required on the cessation of hostilities ; and to recommend what steps should be taken during the war to facilitate a prompt commencement of building work at that time.

(4) Generally to consider and report upon any conditions affecting the building trades which tend to cause unduly high prices, and to make recommendations in regard to any measure of control which it may be desirable to exercise over the charges, production, transport, or distribution of material.

Correspondence and inquiries should be addressed to The Secretary, Building Materials Supply Committee, Ministry of Reconstruction, 2, Queen Anne's Gate Buildings, London, S.W.1.

Bandages from Linen Mounts of Old Plans.

The voluntary organisations for supplying comforts to our wounded sailors and soldiers working under the directions of the Army Council have been providing, among other things, enormous numbers of bandages and splints for the hospitals. There is urgent need of further supplies of muslin, calico, and linen, and it is difficult to know where to turn to obtain these.

In the offices of engineers and architects, of railway companies and shipbuilders, of county councils and municipalities, there are large numbers of obsolete drawings

and tracings, cartoon maps, and diagrams mounted on calico and linen, for which there is no further use.

It has been found that the muslin and calico on which these drawings are mounted, and particularly the tracing cloth, are of excellent quality, and when washed, cleaned, and sterilised are most suitable for surgical work. The drawings are soaked in a pond for 24 hours, and the linen stripped from the paper and then boiled and washed. The paper goes to paper-makers. It is therefore a matter of great urgency that all such drawings and tracings should be turned to national use.

Inquiries on the subject should be addressed to Sir Francis Fox, Alyn Bank, Wimbledon, S.W., who is dealing with the matter.

Mr. Henderson's "First Day of Summer."

Mr. Arthur E. Henderson, F.S.A., *Licentiate*, whose admirable architectural reconstructions of the Temple of Artemis at Ephesus (the Cressus structure and the Hellenistic) hang on the walls of the Institute, has this year sent to the Royal Society of British Artists a painting which must be considered his *chef d'œuvre*. The "First Day of Summer," as the picture is called, is an imaginative evocation of considerable power and originality, possessing a wealth of colour and detail, based on the artist's scholarly knowledge of Byzantine work. Mr. Henderson gives the following description of his picture :—

The picture represents the Empress Theodora, wife of Justinian, leaving the Palace of Justinian at Constantinople to go by barge to the Summer Palace on one of the Islands in the Sea of Marmora. The Palace was situated beneath the *Vitae* and on the shore of the Sea of Marmora from Santa Sophia. The position chosen is the main entrance from the sea. Marble steps lead up to a large hall, flanked by two fluted white columns (one only shown) and ceiled by a barrel-vault and semi-dome, the latter ornamented by a great mosaic representing a peacock in all its splendour. Over the doorway to the Great Hall is a mosaic representing Justinian supported by two *cherubs*. Below is a panel carved to represent the Gold, and above that again is a gilt-bronze chariot being driven by Aurora, and on the tympanum behind is a mosaic representing the rising sun, and standing on a rainbow are the twelve hours. On the arch above, binding in the design, are shown the signs of the Zodiac. Beyond the Great Hall is the court of the palace, and farther behind can be seen the buttresses supporting one of the grand terraces of the Palace which overlooked Asia and the Marmora. Care has been taken to avoid all ecclesiastical and martial ornamentation, to show that this style of architecture can be adaptable to civil uses. On either side of the steps are friezes, one representing ships bringing produce to the port, and the other camels bringing stores.

Captain Honan's Bequest to the Liverpool Society.

Captain Matthew Honan [A.], of Liverpool, who was killed in action towards the end of last year, has bequeathed to the Liverpool Architectural Society the sum of £1,000 to found an annual travelling Studentship to be known as "Honan's Studentship," the scholarship to be open only to members of the Liverpool Society under the age of thirty years upon such competitive conditions as the society think fit.

CORRESPONDENCE.

Architecture as History.

512 Lordship Lane, Dulwich, S.E., 1st Nov., 1917.

To the Editor, JOURNAL R.I.B.A.—

SIR,—I have read most of the useful discussion on the Education of the Architect as recorded in the JOURNAL. It seems to me that a very important item has been overlooked—namely, the omission of architecture in books of history. Take Gibbon or Green, in both these there is hardly any mention, much less description, of architectural buildings. Could not the Board of Architectural Education approach the learned Professors of History at the Universities and Schools and suggest to them that it would be advisable to incorporate, in their lectures and books, accounts of the building of the fine monuments erected during the periods they are dealing with? Surely the arts of peace reflect the character of peoples equally with the destructive and inventive science of war and political intrigue? If this be so, should they not be discussed, recorded and taught?

A. E. HENDERSON, F.S.A., Licentiate.

MINUTES.

At the First General Meeting (Ordinary) of the Session 1917-18, held Monday, 5th November 1917, at 3 p.m.—Present: Mr. Henry T. Hare, President, in the Chair; 37 Fellows (including 17 members of the Council); 11 Associates (including 2 members of the Council); 1 Hon. Associate, 5 Licentiates, and several visitors, the Minutes of the meeting held 25th June 1917 were taken as read and signed as correct.

The Hon. Secretary announced that the following Members, Licentiates, and Students of the Institute serving with the Colours had fallen in the war since the last meeting:—Harold Frederick Ponton, *Associate*; 2nd Lieut. James Monteith McLean, Highland Light Infantry, *Student*; Captain Charles Wm. Eaton, Leicester Regiment, *Associate*; 2nd Lieut. Cecil Lawrence Wright, Royal Garrison Artillery, *Associate*; 2nd Lieut. Sidney Derrick Appleby, Royal North Lancashire Regt., *Student*; Lieut.-C. G. 1 Victor Augustine Flow, D.S.O., Lanc. Regt., *Lieutenant*; 2nd Lieut. Wm. Wylie Houston, Royal Engineers, *Associate*; Lance-Corp. David Lang Meikleham, Royal Engineers, *Associate*; 2nd Lieut. John Hardy Wilson, Sherwood Foresters, *Licentiate*; 2nd Lieut. Ernest Warneford Wray, Royal Engineers, *Institute Silver Medallist*; Edward O'Brien, R.A.M.C., *Licentiate*; Private Thomas Christopher Barker, Yorks Regt., *Licentiate*; 2nd Lieut. C. J. Morton Cowdell, Royal Engineers, *Associate*; Edward Garratt, *Licentiate*, *Pugin Student*; Staff-Sergeant Claude Edgar Hill, R.A.M.C., *Associate*; 2nd Lieut. John Moodie, Seaforth Highlanders, *Student*; Lieut. Alexander D. Stuart, Seaforth Highlanders, *Student*.

It was resolved that an expression of the Institute's deepest regret for the loss of these members be recorded on the Minutes and that a message of sympathy and condolence be forwarded to their near relatives.

A similar message of sympathy was ordered to be sent to the following Fellows of the Institute who had recently lost sons in the war* :—Messrs. John Sulman, W. S. Walker, Arthur Wakerley, Charles W. Bowles, G. H.

* The names of the sons have been published in the JOURNAL Record of Honour.

Fellowes Prynne, S. P. Silcock, Percy B. Tubbs, Thomas Dinwiddie, Fred Bath, and H. Percy Adams.

The decease was also announced of the following members:—Edward Haywood-Farmer, elected Fellow 1914; Howard Chatfeild Clarke, elected Fellow 1906; Gerald Calcott Horsley, elected Associate 1890, Fellow 1906; Richard Henry Weymouth, elected Associate 1889, Fellow 1909; John Lemm, Licentiate; William Campbell Davidson, Licentiate; Edwin Frederick Wm. Streeter, Licentiate; Walter Goldstraw, Licentiate, and Sainte-Marie Perrin, Hon. Corresponding Member 1901.

It was Resolved that the Institute do express its appreciation of the services rendered to the profession by the late Mr. Chatfeild Clarke and Mr. Gerald Horsley and that a vote of sympathy and condolence be passed to their nearest relatives.

Nominations for membership were announced—10 Fellows, 5 Associates.†

The President delivered the Opening Address of the Session.

On the motion of Mr. Ernest Newton, A.R.A., *Past President* (whose remarks were read in his unavoidable absence by the Hon. Secretary), seconded by Mr. John B. Gass [F.J.], President of the Manchester Society, a vote of thanks was passed to the President for his Address.

The President having briefly responded, the proceedings terminated at 4 p.m.

LEGAL.

Local Government Board's Model By-laws.

Mr. Justice Bailhache, sitting in the King's Bench Division of the High Court last week, gave an important decision concerning a building by-law dispute affecting alterations and additions to "domestic buildings." The case has special interest for architects as being one in which the defendants, a local authority, had adopted as one of their by-laws section 23 of the Public Health Acts Amendment Act 1907. The dispute arose out of building alterations at Repton School (Mr. W. A. Forsyth [F.J.], architect), and the governors of the school were plaintiffs, and the Repton Rural District Council defendants. The following report is reprinted by permission from *The Times* of the 8th Nov. 1917:

This case raised the question whether one of the Local Government Board's Model By-Laws was valid. His Lordship gave judgment for the plaintiffs, holding that the by-law had become unworkable.

In 1916 the governors of Repton School proposed to make alterations in one of the school boarding-houses. The alteration included an addition to the house of a projection three storeys high with a room on each floor. The alterations were begun in August, 1916, without the deposit of any plans with the defendants, the local authority. The local authority demanded that plans should be deposited. This was done.

On September 28, 1916, the defendants resolved that the plans should not be approved of, as the addition did not comply with by-law 12 of the defendants' by-laws as to the provision of open space in the rear of new buildings.

By-law 12 provided:—

"(1) Every person who shall erect a new domestic building shall provide in the rear of such building an open space exclusively belonging to such building, and of an aggregate extent of not less than one hundred and fifty square feet, and free from any erection thereon above the level of the ground, except a water closet, earth closet, or privy and an ash pit.

"(2) He shall cause such open space to extend laterally throughout the entire width of such building, and he shall

† The names are set out under "Notices" overleaf.

cause the distance across such open space from every part of such building to the boundary of any lands or premises immediately opposite or adjoining the site of such building to be not less in any case

A "domestic building" was defined in by-law 1 as meaning "a dwelling-house or an office building or other out-building appurtenant to a dwelling-house, whether attached thereto or not"

The plans deposited by the plaintiffs were in all other respects in accordance with the defendants' by-laws.

The plaintiffs said that it was impossible to provide an open space in the rear of a new building which consisted of an addition to the front of an existing building; and that by-law 12, relating to the provision of an open space in the rear of new buildings was unreasonable and *ultra vires*.

The plaintiffs proceeded with the alterations and addition. The defendants served a notice on the plaintiffs on 29th December, 1916, to show cause why the addition should not be pulled down and removed, and they threatened to pull down the addition.

The plaintiffs claimed an injunction to restrain the defendants from pulling down, removing, or otherwise interfering with the addition to the house.

By-law 12 of the defendants' by-laws was one of the Local Government Board's model by-laws published in 1877, and adopted by the defendants in 1902.

The plaintiffs further contended that the effect of section 23 of the Public Health Acts Amendment Act, 1907, was to extend the definition of a new building to such an extent—including the raising of a roof, alteration of a wall, and making the projection from a building—as to make by-law 12 quite unreasonable and therefore void.

Mr. Hudson, K.C., and Mr. Inman appeared for the plaintiffs; Mr. Talbot, K.C., and the Hon. M. M. Macnaghten for the defendants.

Mr. Justice Bailhache, in giving judgment, read the by-law 12 (1) (2), and said that when one had to consider whether a by-law of a local authority was good one had to approach it with a desire to support it if possible. The matter was much discussed in *Kruse v. Johnson* (14 *The Times* Law Reports, 416; [1898] 2 Q.B., 91). The question in that case was as to the validity of a by-law prohibiting any person from playing or singing in the street. It was obvious that different considerations might apply in the construction of such a by-law from those applicable in the construction of the by-law in the present case. But he thought that the principles laid down by Lord Russell in that case also applied to the present. Lord Russell said:

"When the Court is called upon to consider the by-laws of public representative bodies clothed with the ample authority which I have described, and exercising that authority accompanied by the checks and safeguards which have been mentioned, I think the consideration of such by-laws ought to be approached from a different standpoint. They ought to be supported, if possible. They ought to be, as has been said, 'benevolently' interpreted, and credit given to those who have to administer them that they will be reasonably administered."

The phrase "reasonably administered" gave rise in his (his Lordship's) opinion to a little difficulty, because a public body was by law bound to enforce its by-laws when they had to do with public health, as building by-laws had, and it was not open to the local authority to waive them. Lord Russell gave instances where by-laws would be invalid because unreasonable. But he (Mr. Justice Bailhache) thought that in dealing with a by-law relating to buildings he was not limited to the instances given by Lord Russell in considering whether the by-law was unreasonable. If the result of construing the by-law in a supposititious case which, however, was not of rare occurrence was to which was not at all necessary public health, and was a serious of property-owners, he must say that such a by-law was unreasonable, and therefore void.

By-law 12 applied to a new building, and there was no doubt that the addition to the master's house must now be considered to be a new building. It might, perhaps, not have been a new building before 1907; before then it would probably have been an addition to an old building. But section 23 (d) of the Public Health Acts Amendment Act, 1907, provided that "The making of any addition to an existing building by raising any part of the roof, by altering a wall, or making from the buildings but so far as regards shall be deemed to be the erection of a new building."

It was therefore quite clear that the proposed addition to the master's house was a new building; and much less than this addition would be a new building, such as altering a wall or making a projection from a building. The by-laws were made long before 1907. Mr. Hudson, for the plaintiffs, said that, though they were perfectly valid when made, the effect of the Act of 1907 was to make the by-law unreasonable, and therefore void.

He (his Lordship) was not sure that he could adopt that view. The by-laws contained an interpretation clause, in which "domestic buildings" were defined as meaning "a dwelling-house or an office building or other out-building appurtenant to a dwelling-house, whether attached thereto or not." He was not satisfied that, apart from the Act of 1907, the additions to the master's house did not come within the by-law as being a domestic building. If so, it was a new domestic building within by-law 12. If that was so, according to Mr. Hudson's argument, by-law 12 was unreasonable when it was made, and did not merely become unreasonable after the Act of 1907 was passed.

His Lordship was inclined to think that this building was a new domestic building; he had therefore to consider whether the by-law was unreasonable when it was made. He would take the case of a house surrounded by a park of 30 acres and suppose that the owner wished to increase the size of his dining-room in the front of the house by making it 12 feet wider than it was before, and proposed to make the alteration by throwing out a projection from the front of the house. When the alteration was done that projection would be a new building, which would not have the requisite air space in the rear as required by the by-law. If he were to hold the by-law to be a good by-law, the result would be to prevent the owner of a house from doing such a thing as that. It would not be open to the local authority to act reasonably in the matter, as suggested by Lord Russell, because it was bound to enforce the by-law.

Mr. Talbot suggested that in a case like that they might call the front of the house the back, and so get over the difficulty, but it was not open to the local authority to do that. In his judgment, the by-law would prevent an addition to a house such as he had suggested, which would not otherwise infringe the provisions of the Public Health Acts. He could see no reason for such a by-law, and he must hold it to be unreasonable, notwithstanding an owner of property from doing what he to do. That was the conclusion at which he had arrived, although he had done so with reluctance.

His Lordship said that he would have liked to have held that the by-law did not apply where there was ample air space for the whole structure, and that what one had to do was to take the whole building, old and new, and see whether there was sufficient air space. But the wording of the by-law did not admit of that construction, and he could not, therefore, come to that conclusion. If he could have done so, it seemed to him that the result would have been a reasonable one. The effect of such a construction would have been that, where there was an old building without sufficient air space the local authority could not order it to be pulled down, but they could prevent any addition to it.

He thought that since the passing of Section 23 of the Act of 1907 the by-law had become unworkable, and must therefore be revised. There would therefore be judgment for the plaintiffs to restrain the defendants from pulling down the addition to the house.

NOTICES.

Informal Conference, 22nd November, 1917, at 3 p.m.

Subject : THE FUNCTION OF AN ARCHITECTURAL SOCIETY. Discussion to be opened by Mr. SIDNEY WEBB.

Business Meeting, 3rd December, 1917.

A GENERAL MEETING (BUSINESS) will be held Monday, 3rd December 1917, at 3 p.m., for the following purposes :—

To read the Minutes of the General Meeting (Ordinary) held Monday, 5th November 1917.

To proceed with the election of candidates for membership (see names below) :—

Building after the War.

A SPECIAL GENERAL MEETING will be held on Monday, 3rd December, 1917, immediately following the Business Meeting above announced, to consider the question of Building after the War, with special reference to the question of official permits.

[The meeting is called on the requisition of Messrs. Herbert W. Wills, C. H. Brodie, W. Henry White, John Slater, Francis Hooper, David Barclay Niven, Alfred Cox, and J. S. Alder, *Fellows*, and Messrs. Herbert Shepherd, M. N. Castello, Wm. E. A. Brown, and Gerald Cogswell, *Associates*.]

Candidates for election, 3rd December.

As FELLOWS (10).

GRANFIELD : SYDNEY WHITE [Associate, 1892], 14 Gray's Inn Square, W.C. (now serving with the Colours).

Proposers : Edwin Cooper, Henry V. Ashley, and Fred. W. Marks.

***HAEVEY :** WILLIAM ALEXANDER [Licentiate], 5 Bennett's Hill, and Linden Road, Bournville, Birmingham.

Proposers : Ernest Newton, Arthur Keen, Chas. E. Bateman.

***JONES, FRANCIS** [Licentiate], 178 Oxford Road, Manchester; and Blackcraig, Knutsford.

Proposers : Percy S. Worthington, Isaac Taylor, and Paul Ogden.

***MORRISH :** WILLIAM JAMES MARMADUKE [Licentiate], Wyke Road, Gillingham, Dorset.

Proposers : Charles B. Pearson, Charles T. Miles, and the Council.

NICOL : GEORGE SALWAY [Associate, 1903], King's Court, 117 Colmore Row, Birmingham; and "Manresa," Vernon Road, Edgbaston.

Proposers : Chas. E. Bateman, Arthur Harrison, and Alfred W. S. Cross.

NICOL : JOHN COULSON [Associate, 1887], King's Court, Colmore Row, Birmingham; and Elmdon Lodge, Acocks Green, Birmingham.

Proposers : Arthur Harrison, John P. Osborne, and Alfred W. S. Cross.

***POWELL :** ROBERT SIDNEY [Licentiate], 11 St. Mark's Square, N.W.

Proposers : John Hudson, Fred. W. Hunt, and Arthur Ashbridge.

***RUTHER :** CHARLES TAMLIN [Licentiate], 5 Northampton Gardens, Swansea.

Proposers : Ernest Newton, Henry T. Hare, and E. Vincent Harris.

SMALLMAN : HENRY RICHARD GEORGE STRONG [Associate, 1905], 8 Queen Street, Cheapside, E.C.; "Kemerton," Rosebery Road, Sutton, Surrey.

Proposers : H. D. Searles-Wood, J. Douglass Mathews, and Henry T. Gordon.

TICKLE : ARTHUR GEORGE WARNHAM [Associate, 1911], Public Works Department, Hong Kong.

Proposers : Sir Aston Webb, R.A., Sidney Perks, and J. Douglass Mathews.

* These candidates have passed the Examination qualifying for candidature as Fellows.

As ASSOCIATES (5).

(*The candidates have passed the qualifying examination.*)

BEESTON : HUMPHREY ALBERT [Special Examination], State Buildings, East Division, P.W.M., Cairo, Egypt; and 9 Sharia Kasr-el-Nilm, Cairo.

Proposers : Frederick Chatterton, Robert Williams, and the Council.

COATES : HAROLD FENWICK [Special Examination], 47 Queen Street, Melbourne, Australia.

Proposers : The Council.

HENEQUES : ELIAS COSMAS [Student, 1915], Bombay, India; and 21 Cromwell Road, South Kensington, London, S.W.1.

Proposers : Charles E. Varndell, James Ransome, and Robert Atkinson.

HOPF : ARCHIBALD CAMPBELL [Special Examination], 70 Howard Park Avenue, Toronto, Ontario, Canada.

Proposers : F. S. Baker, W. E. Vernon Crompton, and W. J. Morley.

RAYSON : THOMAS [Student 1914], H.M. Office of Works; and 179 Park Lane, Tottenham, N.17.

Proposers : N. W. Harrison, Alfred W. S. Cross, and Professor Beresford Pite.

Licentiates and the Fellowship.

The next Examination of Licentiates desiring to qualify for candidature as Fellows will take place in January 1918. Applications must be sent in before the end of December.

R.I.B.A. Informal Conferences—at 3 p.m.

1. 22nd Nov.—The Function of an Architectural Society. *Opener*, Mr. Sidney Webb; *Chairman*, Mr. Henry T. Hare, President.

2. 5th Dec.—Unity of the Profession. *Opener*, Professor F. M. Simpson [F.]; *Chairman*, Professor W. R. Lethaby [F.]

3. 9th Jan. 1918.—Co-operation amongst Architects, and Specialisation. *Opener*, Mr. H. V. Lanchester; *Chairman*, Professor Beresford Pite [F.]

4. 13th Feb.—National Policy of Town Improvement (Conference with Public Men and Writers). *Opener*, Mr. A. Clutton Brock; *Chairman*, Sir Aston Webb, K.C.V.O., C.B., R.A. [F.]

5. 13th March.—National Housing and National Life. *Opener*, Professor Adshead [F.]; *Chairman*, Mr. W. R. Davidge [A.]

6. 10th April.—Relations of Architecture and Engineering (Conference with Engineers). *Opener*, Professor W. R. Lethaby.

7. 8th May.—Quality of Work and the Present System of Competitive Tendering (Conference with Builders and Workmen). *Chairman*, Mr. H. V. Lanchester [F.]

8. 12th June.—Proposed Parliament of Building Trades.

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THE PLACE OF ST. PAUL'S IN ART.

By Professor BERESFORD PITE [F.]

Inaugural Lecture at the London Central School of Arts and Crafts, 12th October, 1917.

ST. PAUL'S Cathedral occupies an undefined place of esteem in the thoughts not only of Londoners but of children of the British Empire. It is central in their vision of the capital and, rather than the geographical outline of our irregular islands, figures England both in memory and idea. No other form so simply or completely conjures the vision of home and silently imposes itself upon recollection as that of this Cathedral outline majestically crowning a vast city ; it is more potent in its beauty than the far-flung Union Jack, the St. George and Dragon of our gold sovereign, than the Westminster Palace that now backs its paper equivalent, or the handsome Britannia surveying the sea of our homely and beloved pence. St. Paul's is London—at all events, in our dreams ; the landscape would be a nameless and shapeless blur without it, and it is even with difficulty that the previous historical city is pictured that for many centuries grew around its predecessor and which possessed one of the loftiest and most beautiful steeples in Christendom. The covers of our illustrated journals and magazines search incessantly for symbols and decoys of interest and universal appeal, but none to my mind have been more successful than the old silhouette of the city crowned by the dome that for a generation headed the cover of the *Illustrated London News*, and which has now for a long time been unfortunately replaced.

Other capitals and countries similarly are ideally embodied in their principal architectural monument. The Great Pyramid and the Sphinx mean Egypt in a fuller sense than any forms of literary description. Modern Venice has felt the immediate urgency of rebuilding the otherwise purposeless Campanile of St. Mark. Florence without its Duomo would almost cease to be beautiful. Rome was recentred for all subsequent history when Michael Angelo's Dome crowned St. Peter's and displaced the Capitol. The Parthenon and Acropolis are to Athens what Ludgate Hill and its crown are to London, Sta. Sophia to Constantinople, and the Holy Temple to Jerusalem, the loss of which symbolised the dissolution of a nation with its whole economy, the ruin which is the still vital and central emotion of a scattered people.

But among all these peculiarly significant monuments, each possessing an architectural history of extreme interest and enduring æsthetic quality, our own Cathedral of St. Paul holds a position, both architectural and artistic, that completely justifies itself and to which we can give an unhesitating and confident attention. It may well have been otherwise. The central church of the Protestant religion might have had but small claims upon the sympathy of those whose standpoint is always traditional, or to the large number of worshippers with whom art ascends as incense to mingle mystery with religion and imagery with ideals. However, it is not so : the Cathedral of London, the capital church of England, stands boldly among the historic temples of Christian prayer without failure either in its purpose or meaning as expressed by its architecture. The Church of the Divine Wisdom, the first capital church of a Christian world empire, at New Rome, or Constantinople, is a building marvel of the first magnitude, attacking the original problem of a gigantic square auditorium roofed with a circular dome and supported west and east by correspondent apses, primarily a triumph of geometrical arrangement and construction, enriched with the marble glories of the East and the mosaic art of the West, and inheriting the residual vitality of its Grecian soil and craft ; an immense undertaking, significant of the settlement of Christianity upon the high places of the earth, replacing the worldly purposes and scale of the Imperial Thermæ halls and vaults, such as the Pantheon, the Baths of Caracalla, or the cruel Colosseum at Rome, on the greatest scale, planning and achieving for the public worship of the Incarnate Revealed Holy Wisdom such a building as earth had not yet possessed.

The ensuing millennium witnessed in Western Europe the evolution of that whole-hearted art of church building, through the Dark into the growing brightness of the Middle Ages, which we misname,

but fail to rechristen, Gothic. The cathedral builders developed a system that steadily magnified itself, living and growing into a full and luxurious beauty as natural as that of the Cedars of Lebanon, and, blossoming with an infinity of enrichment in its crafts, produced churches universally that are, not only typically Christian, but are perhaps the fullest expression of the whole civilisation, sentiment and science of a great and central era of European history. At Canterbury and Westminster at home, at Rheims, Amiens and Paris abroad, are cathedral monuments that are at once solely Christian and artistic, peculiar and sublime, incapable of mistake in purpose and sentimental appeal. The place of Westminster Abbey in art would have to be exemplified by reading in its poetry both the romance and practical life of the movement of ecclesiastical and artistic life over the whole of North-West Europe during the Middle Ages, of which it is not mainly a singular but a characteristic example. Notre Dame of Paris would serve almost equally well in affording illustration of the characteristics of the epoch, its place in art being similar, with Westminster, to that of any great Gothic Cathedral. These buildings are the fruition not of a genius, or of a generation or race, but of an age, and their place in art is typical, not unique.

The Middle Ages were wending to the end of their course when the great municipal Cathedral of Florence was projected on an enlarged scale to rival every other church in Italy. To the vast vaulted nave an addition was proposed rivalling the area of the central dome of Sta. Sophia or of the Pantheon at Rome, supported by the nave and by apsidal wings, but the available science was insufficient to embody the dream of an octagonal vault over the enclosed area, so, for a long generation, the mortified Building Council had to face the disaster and reproach of having begun a work that was more than they were able to finish. Here, at the dawn of the fifteenth century, the traditions of the guilds that had achieved the marvels of cathedral building broke down and the individual genius of the sculptor Brunelleschi, of the Goldsmiths' Guild, fortified and excited by the monuments of ruined Imperial Rome, completed the construction of the huge cupola, successfully vaulting the great octagon by throwing its pointed arches high above the surrounding roofs, upon a drum or base, and crowning the apex with a superstructure that served a primary constructive purpose in compressing the mass of the vault below. These forms, the rising cupola vault and the lantern crown, in themselves expedients of architectural science, became extant as new motives of artistic interest and meaning attached to the normal cathedral nave, and essentially though originally ecclesiastical in expression. The place of the Duomo of Florence in art is thus significant of the supersession of the mediæval tradition and method of building—one must hesitate to call it design in view of our modern connection of the word with unconnected originality—first by the individual genius on whose personal quality the idea and its fulfilment depended, and, in the second place, by the importation of the interest of a buried historic epoch into living practice. The architectural art of Ancient Rome, in its æsthetic as well as in its constructive works, was dear to Brunelleschi, and though but little detail in the Duomo is Renaissance in form, his other works, such as the great churches of San Spirito and San Lorenzo at Florence, are beautiful examples of the employment of an entirely fresh use of Roman detail and order to building. The new learning had come to art, as well as to literature ; the collapse of the Eastern Christian Empire at Constantinople was imminent ; its stores of classic manuscript and its teachers were spread over Northern Italy ; the Greek Church had formally allied itself, after a separation of centuries, with Rome in the pulpit under Brunelleschi's Dome, the sore of the Crusaders' sack of their capital forgiven in the vain hope of effective succour against the Turk ; the bonds were in the melting-pot and thought and art were free, free as the vault of the Duomo from the traditions of mediæval construction, and as fresh and startling as was its protuberant and unwonted mass above the buildings of the city.

The Revival of Letters, the Renaissance in Art, the Reformation of Religion, and the Rebuilding of St. Peter's at Rome (the alliteration is unavoidable without futile effort) are collectively the historical landmarks closing the Middle Ages and ushering in the Modern Epoch in which we found ourselves when the Great War began. The science, art and religion of Italy are embodied in the fruit of the effort, a

century long, to accomplish the rebuilding of the Church of St. Peter. Its place in art is dominating and wellnigh all-inclusive throughout the sixteenth century. Amidst the unholy tangles of Italian politics in the creation of the Papal States, the jealousies and trials of the artists and architects, the undreamt-of difficulties of constructing magnificent plans based upon the actual accomplishment of Imperial Rome that lay both on the right and left, the original scheme of Bramante progressed, was modified, almost abandoned, and redesigned. Michael Angelo of Florence, pre-eminent in that most difficult of the arts, sculpture, triumphant in the painted embodiments of all human history, hope and fear, in the Sistine ceiling, proved himself not only a master of architectural composition and achievement but also a true Florentine in his design of the great Dome. In this he combines the constructively scientific form of his native Duomo with the artistic expression of Renaissance art, and has carried the Dome, originally in Constantinople based upon the Pantheon at Rome, an internal motive only, and which at Florence obtruded itself forcibly upon the external aspect, into a new importance as the crowning significance, the most complete and synthetic expression of architectural dignity. The Dome henceforth was a new necessity in all great design. It has found many purposes to serve, great and small, worthy as well as trivial, but seated upon the greatest building of Christendom, of the whole civilised world, ancient and modern, it cannot be overlooked or dispensed with as an architectural asset pre-eminent and sufficient. Speculation may amuse itself by impotent suggestion whether any other such form remains unrevealed wherewith the ingenious architect may attain an earthly immortality. We cannot suggest that the new iron and concrete age may yet accomplish itself architecturally with permanent structures, on entirely fresh constructive principles, that may ere long acquire the recognition first of their necessity to some high end and therefore of their probable, possible or essential and necessary beauty. Such beauty does come to the gigantic mammoths of the shipbuilder. May it not also descend, with the endurance of time, upon the viaduct and railway termini, or others among the larger instances of modern building science and art ?

From the date of the completion of St. Peter's at Rome by Maderno in the half century following the death of Michael Angelo to the rebuilding of St. Paul's is a short step—and we are soon face to face with our immediate subject. In Rome civic improvements on a great scale culminating in the colonnaded atrium of St. Peter's, and in France in palace building concentrating on the Louvre, represent the progress of Renaissance architecture subsequent to the Great Dome of the Vatican. The new Cathedral of St. Paul in London is the next historic landmark in building art, and its designer is the most significant personage of this later age in Europe.

The English were late in profiting by the new light of the Renaissance that had dawned early in the fifteenth century upon Italy. The French began to make good use of it during the era of Francis I., but in spite of the enlightenment of Henry VIII. and his large patronage of Italian artists, of which the tombs in Henry VII.'s chapel by Torregiano, the terra-cottas executed for Wolsey at Hampton Court, and the now lost palace of None-Such are evidence, there was a native objection to new foreign ideas in building that impeded progress for wellnigh a century. The movement from the unconscious art of the mediæval masons, that fulfilled itself at King's College, Cambridge, and in the Royal Mausoleum at Westminster, to the eclecticism and personal quality of the Italian artists was slow and difficult. The former traditions were crushed and extinguished by the suppression of the monasteries and by the Reformation. The organisation that created and maintained architecture and the crafts was destroyed, the old national vitality in building ceased, having been almost wholly ecclesiastical, and neither the Court, as in France, nor the municipalities, as in the Low Countries, embarked upon large building undertakings to maintain and stimulate this industry.

It may be doubted if we have yet survived the effects of the great alteration of purpose and provision in building that Henry VIII.'s policy commenced. The Elizabethan age was more than content with its inheritance of ecclesiastical buildings ; the foundation of colleges, more or less modest in scheme, and the erection of mansions by means, largely, of the transferred wealth of the monasteries, occupied, on

a relatively minor scale, the architectural spirit, which is poor in quantity and crude in intelligence, though highly picturesque and attractive in its semi-barbaric taste and dimly formal symmetry. This age found its adventurous soul upon the sea in ships, by commercial enterprise and empire-founding in the New World, and meditatively, at home, became resplendent with the glory of Spenser, Sidney, Shakespeare, Raleigh and Bacon. For equivalent painters, sculptors and architects in this golden epoch of English intellect, however, we search in vain. The Elizabethan mansion-house magnified the mediæval manor, developed its plan with symmetrical repetition of parts, enlarged the windows to the uttermost, now that it was safe to look out upon the world at large, and derived from Flemish pattern-books pseudo-classic ornaments with which doorways and mantel-pieces were trimmed up. The wood-work and plastering of these buildings are rich with vulgar forms and barbaric versions of the Roman Orders, and the gables became fantastic after the Dutch method. There is no sense of architectural refinement or inspiration, no fine sculpture, and very little soundly drawn ornament. The contrast with Continental civil or domestic art is as sadly marked as the intellectual brilliance of the English is certain. The cause lies probably in the political situation which isolated Protestant England from intercourse with Catholic France, Spain, or Italy, a cause which operated until the Stuarts weakened the isolated force of our foreign policy and opened up connections with the Continental Courts.

The career of Inigo Jones, including his visits to Italy, the employment of his artistic talents in the Court masques, and his admiration for the works of Palladio, forms a significant turning point in the history of English architecture. By his Italian training and wide observation a new taste was introduced into building; culture and correctness of style as well as standardised proportions were recognised as necessities of fine architecture; while his imaginative power, working from Italian ideals, produced the piazza and church at Covent Garden, the splendid designs for the Palace at Whitehall and the addition of the Corinthian portico to Old St. Paul's that at once obtained great popularity. Jones is really the first of the modern architects of England working by professional study of eclectic types through the art of draughtsmanship, in which he excelled, and who obtained with certainty beauty of proportion and detail from drawings and perspectives after the manner of the Italian masters. The contrast between his later works, those designed after his second visit to Italy at the age of 40, in 1612, and all the other productions of Renaissance architecture in England, is that between a scholarly and original intellectual appreciation of artistic possibility and the blundering ignorance of well-intentioned but ignorant craftsmen.

The altered aspect that architecture wore in England after Inigo Jones was the first indication that the new learning had any bearing upon the arts. The great painters, sculptors and architects of the Renaissance had come and gone from most of the Continental schools without the appearance of disciples or rivals here. At the last mentioned date, 1612, Palladio had been dead thirty-two years, and Giacomo della Porta, Michael Angelo's pupil who completed the dome of St. Peter's, eight years. The decadent school of painting was then represented by Guido Reni, who was 37 years of age; and Bernini, the aftermath of Renaissance inspiration, was already 23. In the Low Countries, however, we may note that Rubens was 35 and Rembrandt a boy of 6, while Antony Vandyke was 13, the same age as the Spaniard Velasquez.

France had already a great school of architects. The Italian school at Amboise had been founded by Charles VIII. through the importation of Fra Giocondo; Francis I. had patronised Andrea del Sarto, Benvenuto Cellini and Leonardo da Vinci; Primaticcio the modeller and Vignola the architect had both worked for him, and a native school had arisen producing Jean Goujon the sculptor, the family of the architects and draughtsmen, the Du Cerceaux, Pierre Lescot, Philibert de L'Orme, and the other founders of the great school of architectural design which retains to this day its national character.

From its insular and barbaric backwardness the genius of the travelled artist, Inigo Jones, awakened England, and were it not that the storm of the Great Rebellion broke in 1640, the carrying

out of his full design for the Great Palace at Whitehall would have demonstrated in an unequalled degree the greatness both of his talent and of its opportunity in the sympathetic hands of Charles I. The artistic instinct of this unfortunate and misguided monarch is evidenced in his commission to Rubens to paint the ceiling of the Banqueting House, and in his affection for Vandyke. To such an architectural scheme the political conditions put an end, and the resulting exhaustion of the Civil War deprived both the nobility and the Church of the means of fine building. Until the Restoration in 1660 nothing counts in the artistic scales but the hardening of the national character into a stronger independence and severity, evidenced in the freedom and clarity of the subsequent architecture. This is apparent by contrast with the tendency of contemporary Continental art to run to ornamental excesses and constructional violence ; the characteristic Puritan restraint in English building, throughout the eighteenth century, becomes remarkable, and we may not be wrong in ascribing the altered force and breadth of our later Renaissance building to the prevenient moral cause of the underlying Puritan movement.

Christopher Wren was a boy at Westminster School in the early days of the Rebellion and a resident at Oxford until the Restoration, when we find him Savilian Professor at Oxford and Professor of Astronomy at Gresham College. His reputation as a scientist secured his appointment to assist Sir John Denham, who had succeeded to Inigo Jones's office as Surveyor-General of Works, and in 1661 he became D.C.L. both of Oxford and Cambridge. Charles II. also had both artistic and scientific instincts and soon promoted the repair of St. Paul's among other architectural proposals.

A Commission was set up to consider the restoration or rebuilding of the Cathedral, its general condition inviting the latter alternative. Much interest attaches to the history of the restoration and repairs begun under James I. by Inigo Jones, who, besides the west portico already referred to, had clothed the outer walls in a classic dress that extended as far as the transepts. The steeple had by this time been taken down as dangerous when Wren proposed the design of a rotunda, doubtless connected with his early and complete knowledge of Ely Cathedral, where his uncle Matthew had been Bishop ; his scheme corresponded fully with that of Alan de Walsingham, who, when the central tower of Ely fell in the fourteenth century, cleared the crossing by including a bay on each side and forming the great octagon into which all the side aisles of the four arms of the cross entered.. Upon such a base formed by the removal of the central piers was projected his rotunda crowned by a well-formed dome, and containing an inner dome or tholus, a scheme to which he afterwards reverted when baffled in his famous scheme for an entirely circular building within a hollow Greek cross plan. The Commission discussed and commenced repairs, weighed the economy of Wren's proposal that the piers of the tower might afford a scaffold for the erection of his dome, and were advancing towards a decision on the main question when the war with the Dutch in 1664 and the plague in 1665 delayed matters sufficiently to enable Wren to make a visit to Paris which he hoped would extend to Italy.

Wren had now practised as a scientific architect in several important Government enquiries and had prepared a model for the theatre at Oxford, afterwards erected by Archbishop Sheldon as a memorial gift to the university which he declined to revisit and enjoy, and had erected his uncle's memorial chapel at Pembroke College, Cambridge. His position as a professional adviser was now widely recognised and he counsels the Master of Trinity College, Oxford, against a closed quadrangle on sanitary grounds, adding that this opinion would soon have the benefit of a conference with Signor Bernini and Mons. Mansart, whom he would see in Paris shortly ; and in a report on his design for a new library at Trinity College, Cambridge, he remarked that " Architects are as great pedants as critics or heralds." That winter spent in Paris had important bearings on the future of English art. The cultivated intellect and high scientific reputation of Dr. Christopher Wren at once secured for him intercourse with everyone that he could desire to meet. He spent days in surveying fabrics and the works on the Louvre, where 1,000 workmen were employed. Signor Bernini, who was 67, had been brought in state from Rome by Louis XIV. to advise on the completion of the Louvre and Wren secured a hurried inspection of his

design. For which, he says, "I would have given my skin, but the reserved old Italian gave me but a few minutes' view ; it was five little designs on paper for which he had received as many thousand pistoles."

He records that he met Mons. Mansart—that is, François, aged 67, not Jules Hardouin Mansart, aged 19—who after this visit designed the dome of the Invalides and completed it long before Wren achieved St. Paul's ; also Le Vaux, Colbert and Le Pautre. It would be interesting to review fully the buildings completed and in progress in that city at this early and splendid epoch in the reign of the Grand Monarque : among them the elliptical dome of the Institut by Le Vaux, architect to the King, as also the Church of St. Sulpice by the same architect, and the fine domed church of Val de Grace, projected by Mansart, completed by Le Mercier, who was also the designer of the fine Church of the Sorbonne. He also would have seen Mansart's graceful domestic work at the Hôtel Carnavalet and at Blois and Maisons and Maisons Lafitte, pure and elegant, perfect in refinement and architectural system. The method and value of these fine scholarly works ultimately prevailed in the completion of the Louvre, and over the influence of Bernini's reputation, whose proposal was a mammoth order and cornice worthy in scale of Michael Angelo. There was also an abundance of illustrated architectural literature in Paris, both published and upon the stocks, of which we may be certain that due account was taken, dealing with antique and modern buildings, as well as the current publications of the new State Academy of Architecture recently founded by Colbert.

Wren was enthusiastic in his studies and visits. He says : "I have on the anvil observations on the present state of architectural arts and manufactures in France," and reflects : "What art can be more helpful or more pleasing to a philosophical traveller, an architect, and to every ingenious mechanician ?"—a fairly complete definition of his own triple point of view. Versailles was estimated critically, with much the same salt and conclusions as those of a remarkable article in a number of *The Times* Literary Supplement this summer entitled "The Pompadour in Art." He remarks on the influence of women on architecture in the Palace or Cabinet of Versailles "with its mixtures of brick, stone, blue tile and gold like a rich livery. Crowded with little curiosities of ornament. The women, as they make here the language and fashions, and meddle with politicks and philosophy, so they sway also in architecture, in which works of filigrand and little trinkets are in great vogue ; but building ought certainly to have the attribute of eternal, and therefore the only thing incapable of new fashions." Wren returned to London about the beginning of March 1666, therefore before the Great Fire.

The contrasting conditions of the two countries, the preceding visit of Inigo Jones to Italy and its influence, and that of Wren to Paris in its heyday of architectural energy, will illustrate the place of St. Paul's in the art history of England. The absorbing interest to the student of the gestation of the design for the new Cathedral, in its well-known phases, is a part of our present subject, but one upon which time does not permit us to enter, and perhaps is of special interest only to the architectural psychologist.

The original scheme for creating a rotunda within the Gothic Cathedral was renewed, and plans and estimates were ordered on 27th August 1666. The fire broke out on 2nd September. For two ensuing years works proceeded upon the ruins with the aim of preserving the nave and west end, at a cost of nearly £11,000 ; casing piers and patching. This costly temporising continued until 2nd July 1668, when Sancroft, afterwards Archbishop, begged Wren for "a plan handsome and noble." The result was the famous first design. Of this it must suffice to say that it is a design of great simplicity and power, exhibiting high architectural genius ; great in scale, original in conception, constructionally and geometrically sound, complete and entirely self-dependent, possessing that subtle assurance of success and victory as a design which rouses the enthusiasm of the creator for his inspiration, as well as awakening the full sympathy of the beholder. We can understand Wren's undying regret for it and in a measure comprehend the incessant mortification occasioned by its forced abandonment. The

narrow-minded opposition of the clergy and, it is supposed, of the party of the Duke of York, secured its non-approval, and a trying season of discussion and provocation of the architect's spirit ensued.

A second design was required and prepared adhering to the accustomed arrangement and proportions of nave, transepts and choir, in which the old scheme of the rotunda was embedded. Reluctance to adventure, affection for time-honoured types, both in architecture and ritual, seem to have strengthened prejudices to the full, so that the architect had to submit and sacrifice his better judgment and conception to the tyranny of circumstances. Wren's designs suffered in this way more even in a couple of years than those of St. Peter's at Rome underwent in a century. The latter oscillated from Bramante's first great scheme of a Greek cross and rotunda to San Gallo's and other designs for a Latin cross plan. Michael Angelo's complete conception restored the Greek cross and framed the proportions of the dome accordingly. Maderno simply extended the Latin cross with a narthex and embodied the great architect's complete Greek cross within the whole. Wren, completely driven from his first position, had to start afresh and work with manifest distaste upon a system of plan that he felt to be outworn and lifeless. That he ultimately produced a beautiful building, subduing the elements that raged against his ideal and employing them to a new and fresh triumph, is a striking testimony to the architect's character as well as to his versatility and power of design.

Controversy as to the plans was determined by a Royal Warrant dated 12th November 1673 approving a second design and appointing Commissioners for its execution. The drawings attached to the Warrant,* though they may appear inchoate in composition, and, to the unsympathetic, scarcely serious, in fact contain the major problems in their early development: the nave and aisles, not yet masked by the upper storey, which Wren ultimately felt to be inevitable to secure breadth and mass; the internal rotunda, protruding in elevation though necessarily very different in perspective diminution; the peristyle that surmounts it, in a corresponding position to that ultimately built as to height, at the top of the internal dome. The peristyle was ultimately erected upon a drum that introduces the system of screening the ungainly elements, as in the nave. Upon the peristyle is placed a cupola completed by a lantern. Each of the parts contains elements of design and detail with which the architect was experimenting; that may be recognised in the later spires of St. Bride's and St. Mary-le-Bow, and the first proposals for the western towers, and yet hark back to the ancient steeple of old St. Paul's. This Warrant design is emphatically serious and reveals the growth, amidst controversy and difficulty, of the principles, complicated and novel, that developed in the treatment of the flanking walls and in the triple construction of the great dome and lantern. That the architect continued with instinctive foresight to develop his theme from this basis is evident. Want of discernment of the process of working through complexity to breadth of a great design would treat this intermediate stage as intended to flout either the Commission or the public through disappointment, spite or wilfulness; but the process is direct, and directed to the end attained: judgment on the unfinished picture should be suspended both by adults and the wise.

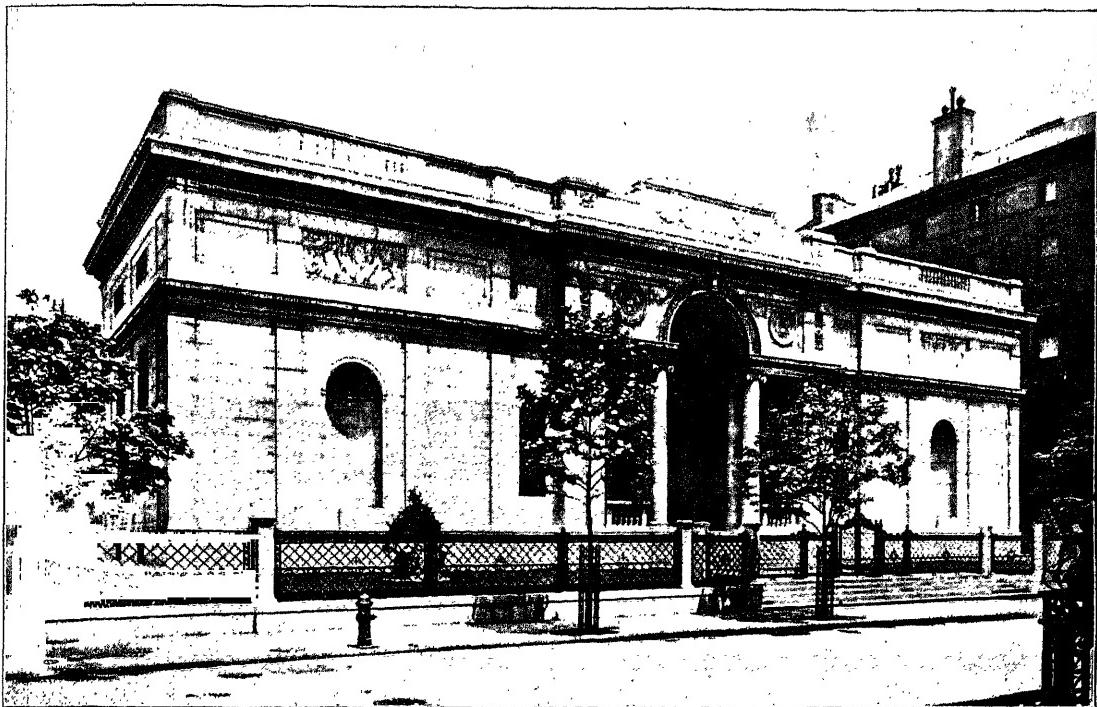
The architectural treatments, external and internal, the skill both of the plan and construction, astonish us with their mastery and science, in their innate connection with known precedents and in their originality. The artistic charms of the achieved effects of form, of light and shade, of mass and of detail, must be hinted at and not described: suggestions that may guide us to the building itself for illustration and enjoyment. The whole Cathedral is full of architectural interests of the highest order, and as the work of one mind is a unique triumph of genius and character. Our subject might now easily stray either into the large field of the constructive interest of the problem of the dome and its supports, of its relation to the mediæval type of plan to which it is adapted with great skill, or into the lofty theme of the imaginative value of the dome internally, the æsthetic charm of the effects of the vistas, and of the artistic quality of detail. Each branch of the subject is large enough for discussion, and if practically treated would demand carefully weighed explanation.

* *Vide* plate (from the All Souls College Collection) in Blomfield's *History of Renaissance Architecture*, Vol. I.

The main topic of this discussion, the relative position of the great Protestant Cathedral in historic art, has been suggested, and the supremacy of Wren's genius has necessarily appeared, both in overcoming surrounding limitations and difficulties and in developing a scientific and artistic work of vast extent and influence. St. Paul's, however, more than maintains the place in art to which the evolution of architecture assigns it. It is highly significant that no subsequent ecclesiastical building in Europe or America has created an appeal to that universal sympathy, which is the ultimate and abiding test of any work of art, comparable with the London Cathedral of the Restoration. Paris endeavoured this in the Panthéon, a building of similar architectural intention. Soufflot, the architect, conceived a plan with a scientifically constructed dome of great originality and beauty. For a long while failure threatened the whole building, due to imperfect workmanship and some miscalculation of forces, mistakes from which Wren's work is wholly free, not by fortuitous chance but by foresight and true estimation of mechanical power. Washington and Petrograd, as well as Berlin, have attempted central-domed buildings of great size that wholly fail in comparison with St. Paul's, and among a large range of modern paper designs for proposed cathedrals no inspiration has approached that of Wren even in dreams.

The partial and individualistic standards of revived architectural fashions have applied almost ridiculous criticism to the methods of Wren's achievements. Either the external screen walls or the double or triple dome construction are invoked as violating moral principles, forgetting that monuments are symbols that reveal creative beauty in a workaday and worried world, to which the elevation of purpose above mere conformity to utility into poetry is a blessing and divine gift. Strip St. Paul's of the elements complained of by pseudo-Gothic purists and little will remain but that humdrum struggle with artistic sense that is revealed in the Warrant design. Wren cannot be condemned for lifting architecture into nobler results of breadth, power and beauty, by the means with which he supported the composition of his dome and gave glory to the whole landscape of London in the majestic line and grouping of the great walls that connect the sweeping curves of the dome with the picturesque group of the western towers.

The place of St. Paul's in art, in effect, is not intermediate, between the Mediæval and Classical ideas of the Renaissance, though it stands there both chronologically and as to its design—it is a unifying monument, suggestive of architectural possibility, vital and unrivalled, exhibiting both the exploring spirit of a great imagination and its embodiment of the world-achievement of architectural effects. We must not merely stand by and wonder ; it is ours to awake to the stimulus of its possession and to attempt afresh the appreciation of London's greatest treasure in the building that gives our mysterious city an artistic radiance, and without which it would be an almost unimaginably formless aggregation. St. Paul's enables us among the nations to justify the English race from an almost deserved charge of artistic impotence and impassiveness, and it should embolden us to assert that the place of England in modern art, in an universal view, is that of St. Paul's, eminent and unchallenged.



LIBRARY OF J. PIERPONT MORGAN, NEW YORK CITY, 1906.

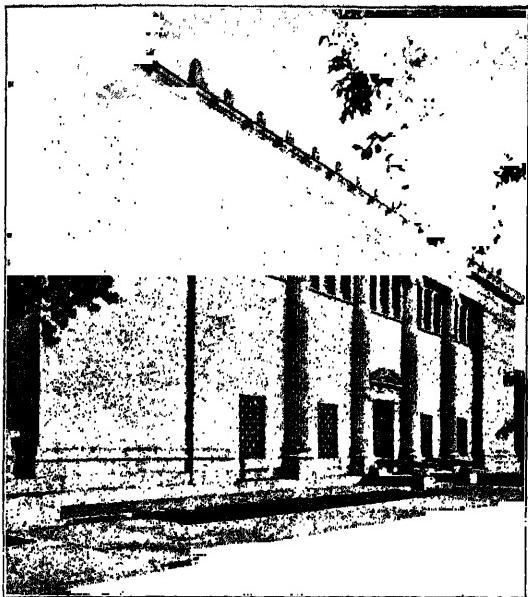
THE WORK OF McKIM, MEAD AND WHITE.

By STANLEY C. RAMSEY [A.]

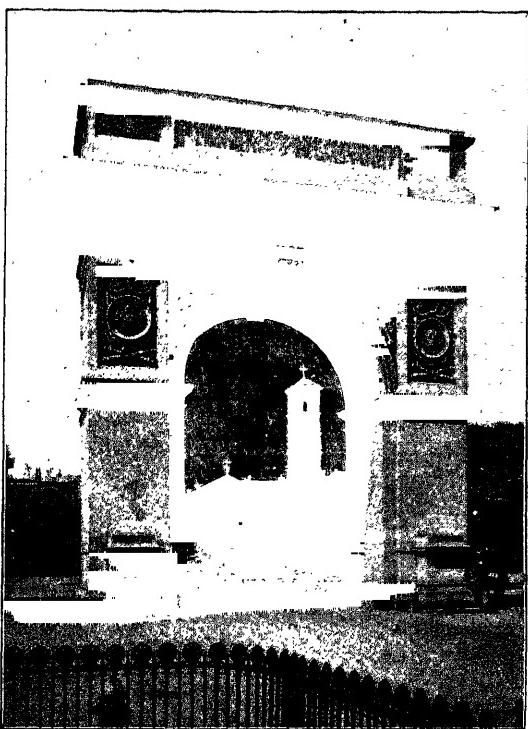
THOSE architects in this country who have known something of the work of McKim, Mead and White have from time to time wondered why no publication has appeared giving a full and adequate representation of their buildings. At last this long-felt defect has been remedied, and amongst the recent additions to the Institute Library made by the Literature Committee is a sumptuous work illustrating the buildings of this distinguished trio. There is something about a genuine partnership in art which is almost sacrosanct, and when this association of different personalities is based on some real and fundamental condition of their diverse characters and is not merely the result of a business convenience, it becomes an indiscretion, nay more, an impertinence, to seek to determine the exact contribution of the various partners. One must accept them as a complete entity ; and so, as a matter of fact, in speaking of the work of this firm, the world in general, both in the States and elsewhere, has unconsciously employed the names of McKim, Mead and White as if the three designations appertained to one and the same personality. This completeness of identity grows stronger as one turns the pages of this work running into three volumes. Each and every one of the hundreds of buildings portrayed therein bears the same imprint of genius, bears witness, as it were, to the fact that they originated from one and the same brain, and it is something of a shock to realise, upon reflection, that this brain was in some miraculous manner the property of three men, and not that of one. It was a happy thought of the Editor to date each of these buildings and to place them in the chronological order of their erection. For in this way one can compare their earlier works, so full of brilliant promise, with that long succession of triumphant masterpieces, executed later, in the pride and fulness of their extraordinary powers. The first survey of these volumes is a unique and rare experience, one is dazzled and bewildered by the vastness of the results achieved, the mere mass alone is something stupendous ; and when in addition to this it is realised that almost without exception each separate building is a work of loving care, in which, despite the appearance of ease of execution, it would seem

that everything had been studied and restudied down to the minutest detail, even to the meanest and most unimportant brick, it is almost impossible to believe that three short lives alone could have sufficed for such a result. We are apt to regard the short one hundred and fifty years of the true Italian Renaissance, that breathless time of unexampled artistic production, as one of those legendary periods of art which nothing in our modern existence can explain. But it is not an extravagant statement to say that here we have in one brief span of some thirty years a series of buildings which in themselves epitomise all the beauty of the Italians, all the sternness and dignity of purpose of the Romans, and all the exquisite finish and perfection of the Greeks, the gifts of the older civilisations to the most modern, through the channel of three of her most talented sons.

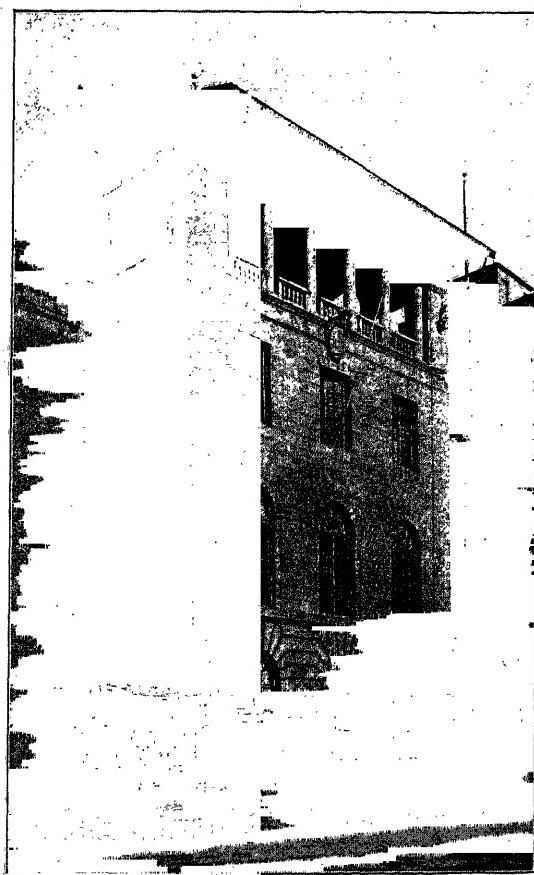
It has been said of Henry James that in portraying the manners of Europe he enabled America to realise her historic sense, that in his reflex studies of the Old and the New Worlds he made Americans feel their relation with those more ancient civilisations which preceded and explain their own. If this be true in a measure of Henry James, how much more is it true of McKim, Mead and White, who, in place of the comparatively few readers of James' select circle, have as audience the millions of citizens in all parts of the States, who, whether they wish it or no, are the daily observers of their buildings, the constant, though possibly unconscious, recipients of their message. Before the War of Independence what are now the United States of America were a series of States, far fewer in number than they are to-day, which together formed a colony of Great Britain, and, as was only natural, received their architectural and artistic direction from that country, and the Colonial architecture of America is our own Georgian architecture modified by the climate and the available materials of the Colony. After the Declaration of Independence, although American sympathy was largely withdrawn from the Mother Country, and though during the subsequent seventy or eighty years the Americans turned more and more to France as the centre and chief force of European culture, the ties and sentiment of race which connected her with her English kinsmen were, however, too strong to be altogether disregarded, and the work of our Greek and Gothic revivals was not without effect on the architecture of the States. There are many fine buildings of a monumental character in all parts of America dating from the early years of the nineteenth century which show this Greek influence, and her own colonial tradition survived in certain districts long after the Declaration of Independence. But gradually America lost her historic sense in art, and the wave of industrialism which swept over Europe after the introduction of steamboats and railways when it reached the United States completely effaced what little tradition remained. Doubtless this was a necessary though painful prelude to the full development of the American character. This period of crude materialism may be said to have been closed with the Civil War, from out of which time of bloody strife America emerged a united nation and a world power. The succeeding years witnessed a far closer connection between the States and Europe ; it then first became the fashion for the more fortunate of their citizens to make the European tour, much in the same way that our young noblemen and dilettanti in the eighteenth century completed their education by a sojourn in Italy, and for much the same purpose. Americans became conscious of their historical relation with the older countries, and the necessary intellectual atmosphere was prepared for the advent of McKim, Mead and White. Their problem then was to give to America a new starting-point for artistic progression, to satisfy the demand for a fuller spiritual and artistic experience, which could only be arrived at by linking up the present with the past, and at the same time to retain that essentially national character which should express the will of a free and sovereign people. It says much for the strength and originality of the partners that, trained in Paris as they were, their work bears little trace of modern French influence ; with that sense of historic truth which was their most vital characteristic, they quickly recognised that it was from Italy that all that is most precious in the civilisation of the modern world has come, and through Italy from Greece and Rome ; France was for them the medium of approach. The earlier works of the firm were chiefly private houses, and, although their buildings at Newport and elsewhere have a charm and freshness of conception, they are



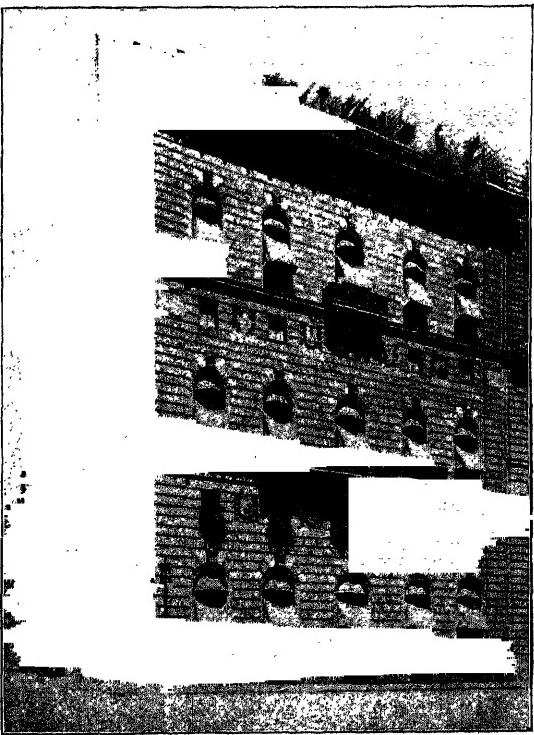
THE CULLUM MEMORIAL, WEST POINT, N.Y., 1898.



THE WASHINGTON ARCH, NEW YORK CITY, 1892.



ST. GABRIEL'S BRANCH LIBRARY, NEW YORK CITY,
1907.



THE UNIVERSITY CLUB, NEW YORK CITY, 1900.

comparatively unimportant, and their chief interest for us perhaps is the evidence they show of the influence of Norman Shaw. The essential history of McKim, Mead and White is to be traced in a long series of public buildings commencing with the Public Library in Boston and finishing with the Pennsylvania Station in New York. In the earlier part of this series the influence of the Italian Renaissance is plainly predominant, as witness the *Herald* Office, the Madison Square Garden Buildings, the University Club, the Morgan Library ; but afterwards it is to Greece and Rome that we must look for the *motifs* which influenced their later works, as exemplified in the buildings for Columbia University, the Bank of Montreal, the Washington Arch, the Architectural Building at Harvard, the War College at Washington, and the great railway station at New York. But never did they lose that clarity of perception and completeness of visualisation which were perhaps the most precious gifts which they brought with them from the Quartier Latin. Their work at any period is always American ; no matter on what particular model any particular building may be based, in scale, composition and conception it is as truly national as any of the outstanding works of France or Italy, and may be as truly described as belonging to the Renaissance as any of those of any European country of an earlier epoch—that is, to the Renaissance of America inaugurated by McKim, Mead and White.

It is a favourite criticism with the detractors of these architects to state that they only copied European buildings, a dictum which if superficially true is none the less essentially false. If Brunelleschi discovered Rome and Greece for the Italians, then no less did McKim, Mead and White discover Europe for their fellow-countrymen. Does anyone, we wonder, ever mistake a building of Brunelleschi or Alberti for the work of the ancient Romans, or a work of Wren for that of an Italian or a Frenchman ? Neither then are these American buildings to be mistaken for other than what they are—the manifest symbol of a people which have become a nation, related to but distinct from those peoples of the older world, with other ideals and purposes, with a life of their own to be lived and a destiny of their own to be achieved ; and it was the happy fortune of McKim, Mead and White to give expression to this sense of nationality, always felt and at last visibly realised in brick and stone.

When we turn from their more important works to the consideration of those of a private or semi-private character we find even in the slightest of their essays that same air of distinction, that same intense note of purpose, which is to be found in their greater undertakings.

If they set a new standard for the public buildings of their country they did scarcely less for those of a more private kind. A nation's domestic architecture is perhaps a surer guide to the character of a people than their more ambitious projects. In their homes we see them, so to speak, off their guard, where there is less necessity for the maintenance of that show and dignity inseparable from their more public appearance. Either McKim, Mead and White were singularly fortunate in their clients or they must have had in a remarkable degree that gift of leadership which often, though not invariably, appertains to persons of outstanding genius. The era which immediately succeeded the Civil War was a time of great social expansion ; money was plentiful, and there were many who desired a beautiful house as eagerly as they coveted a famous picture. It was to them then that McKim, Mead and White, with that wonderful appreciation of values that never failed them, disclosed the beauties and possibilities of their own neglected colonial architecture.

In that series of exquisite country mansions of the Southern States and in the simpler buildings of the New England settlements these modern Americans found models worthy of admiration and emulation ; and, though content with no mere transcript of these earlier buildings, how well and faithfully our architects interpreted their clients' wishes can be seen in the pages of this fascinating volume. Whether it is a dignified town house such as No. 11, West 54th Street, or a rural retreat such as A. A. Pope's residence at Farmington, Connecticut, there is evidence of the same happy facility of execution. Gracious and urbane, delightful in their dignified restraint, fascinating in their sense of ancient lineage, they sum up and express the character of the cultured American at his best. So these great American architects—for time can but enhance and deepen our recognition of their supremacy—

not only discovered Europe for their countrymen politically and historically, but also interpreted for them the beauty and the worth of their own indisputable inheritance, and in the accomplishment of their two-fold mission attained undying fame for themselves and incidentally helped to place the laurels on the brows of many of their followers and disciples. Their phenomenal success is only to be explained by the fact that they were happily related to the spirit of their age, that they understood and fulfilled the needs of their time ; it would seem as if the varying currents of American aspirations and desires had become centralised in them and were by their genius transmuted and given form.

Nor is the consideration of their works complete without some attempt to define and understand the influence that American art does and will exert on the art of this country. As the early Greek colonies first learnt of Greece and then in their turn became the school in which were developed those ideas that so greatly modified the work of European Hellas, resulting in the glory of the Acropolis, so doubtless it will be in some measure the same with us. But in what direction and to what extent that influence will be exerted it remains for the future to determine. The one great outstanding fact in the modern world, which even the present appalling calamity in Europe but serves to emphasise, is the oneness of sensation, the responsiveness of the different parts to the whole, the truth that nothing can be of importance to one nationality without directly or indirectly affecting all the other members of the human race. America is bound to us by so many ties of blood and custom that it is impossible that we should remain indifferent to what she has of good and bad, and of the good, we think, the architectural works of McKim, Mead and White will be amongst her most cherished treasures as long as bronze and stone endure.

THE FUNCTION OF AN ARCHITECTURAL SOCIETY.

The Ninth Informal Conference, held at the Royal Institute of British Architects, 22nd November 1917.

The President, Mr. HENRY T. HARE, in the Chair.

Mr. SIDNEY WEBB : May I explain, at the outset, that I make no pretence at knowing anything whatever about architecture, or about the history of architecture ? The suggestions I have to make come from another standpoint altogether. I have, as some of you know, written a sketch of your Institute as a professional association*; but I did not write it out of particular interest in your profession, nor from any interest in its subject of architecture. My business is public administration, and I took up your Institute as one of a number of similar bodies to see how the professional associations have developed during the present century ; what work they have done, what have been their successes ; the points on which they, I will not say have failed, but have laid themselves open to criticism ; and to try to discover from the past history of the professional association what is the part it has to play in the world ; what it can do, and what it ought not to do. I was interested in that subject because, twenty-five years ago, my wife and I spent six years in studying trade unionism ; and in writing our books on this subject we stated, somewhere, that it was just as important that somebody should investigate the brain-workers' associations ; and we sug-

gested that they should be investigated. A year ago we took up the job for another purpose. The reason we took it up was that during the past ten or twenty years there has been a great revival and expansion of what I will call vocationalism in the world, especially in France, in this country, and in America. I mean by vocationalism the feeling that the vocation, the occupation, the trade to which a man belongs, is a much more important thing than is the parish, or the city, or the county, or even the country, to which he belongs ; and that, therefore, he ought to associate very much more with people of his own craft, his own vocation, than merely with his geographical neighbours. And, moreover, it is the feeling that the part which he has to play in government, in democracy, ought, to a very large extent, to be played through his vocational organisation. That feeling for vocationalism has been becoming stronger and stronger during the present century ; you see it in all sorts of forms, good and bad alike. It would seem to lie at the back of the outbreak of Syndicalism in France ; it lies at the bottom of the activities of the Industrial Workers of the World in the United States. You see it cropping up a great deal in French literature with regard to the brain-workers. We call it, for short, the Functional State, the idea being that the organi-

* "The Organization of the Architectural Profession" (*Journal of the American Institute of Architects*, June, July, August, 1917, reproduced in recent issues of *The Architect*).—ED.

sation of the community ought to be based upon function, not, as it is almost entirely at present, upon geographical constituencies. I say no more about that.

But you will see that, in view of this feeling in the countries of the world, the structure and function of such professional associations as exist do become of considerable interest to more than their own members; and that is why I have ventured to lay hands on the history of your Institute to see what it would yield in the way of inspiration, or suggestion, or warning, upon the subject of professional associations.

I shall not say anything to-day about the stages of growth of your association. It is interesting that it began in 1834, after some forty years of feeble fore-runners of one kind and another. That is interesting to me because all the professional associations began since the beginning of the nineteenth century; practically all the voluntary organisations of the brain-working professions can be included in the nineteenth century. Some of them are only now forming; such newer professions as the Accountants and the Secretaries are only now getting organised. And the yet newer professions, like the Managers in Industry, are still not yet organised. Your professional association began at the same time as some others; and it began, like many others, not as a professional association in the ordinary sense, but as what may be called, technically, a "subject association." The business of the Institute when it started was not to look after architects; it was to promote architecture, and therefore it included not only architects, but other people interested in architecture. And the reason why your Institute was so largely composed of amateurs at the beginning of its work was that it was a subject association, not a professional association. Its interest was in architecture, and amateurs who were interested in it not only had as much right in the association as the professionals, but they contributed quite a special element—an advantageous element, which in becoming a mere professional association you may have lost. You, like other professions, have devoted a good deal of time to professional education; and you, like other professions, have devoted much thought to the subject of professional registration. It is astonishing how alike all these professional bodies are, just as every trade is like every other trade—if its own people only knew it; they are deluded by differences in names, and each man thinks his own trade is peculiar. Every trade union is like the others, with the same veil over it; and so every brain-working profession has much in common with other brain-workers' associations. It is only a difference in technique and in nomenclature which obscures that likeness. I, standing outside, can see the points of resemblance, perhaps, better than points of difference. And you, like other professional associations, are gradually elaborating your special code of professional ethics. Some have done it to a greater, others to a less extent. There is nothing peculiar in that, and I hope you will not think I am criticising your association when I say there is nothing

peculiar in it—that it is strictly as a type of professional associations that I am able to take it.

What is the origin of these professional associations? We distinguish three impulses, as we call them, which have led the brain-working professions, historically, to associate themselves. The first is what we call the creative impulse; it is the desire to promote the art, or the science, to develop, extend and advance it in all directions. That is really akin to the artist's feeling and desire for creation, and the members of a profession come together and unite their efforts deliberately to advance the technique—the science and the art—of their vocation. This creative impulse lay at the root of most of the professional associations.

At the beginning of the nineteenth century professional association was looked very much askance at; it was regarded almost as a conspiracy against the public; and, consequently, this extremely admirable impulse of improving the technique of the profession provided an eligible starting-ground. And along with that was the fellowship impulse, the desire of every man to associate with his kind. As a professional man becomes conscious of himself as such, he tends to come into relationship with other professionals. And out of that has grown not only good fellowship at social meetings, but also benevolent funds and the other things which characterise most professions. The third impulse—not quite so wholly good—is what we call the possessive impulse. It is the desire of each profession to get out of the community as much as it can for the collective service of its members. This is not altogether to be objected to; each profession must stand up for its own, and see to its own defence against the unconscious oppression of the mass of the community—the ignorant oppression. But that impulse does have its invidious side; and, in one profession after another, it has led to various attempts at larger remuneration and easier conditions of service which are only human nature, but are, perhaps, not in the public interest. It is these three impulses which have given rise to your Institute, and to other professional associations.

I come now to the results of the professional association—and I want to put this very briefly. I think that in your Institute, as far as I can see, as in other brain-working professions, the result of the professional association has been a very considerable elevation of the profession. It is interesting to notice, in the history of professional associations, that in the early days of each one you do not find the "swells" of the profession very sympathetic with it; they do not see the need for any professional association. So you do not find the biggest people in the profession taking a very active part in such association. But the rank and file feel the need for raising the profession in the public estimation. And presently they are joined by the leaders of the profession, and the profession stands together in seeking to take a better place in the estimation of the community. I do not want to go into particulars, but I think there can be no doubt that the

architectural profession stands very much higher than it did fifty or a hundred years ago in the estimate of the nation. And I think it owes a great deal of that to the long-continued efforts of the Institute. I do not want to say anything about improvement in architecture—on which I am not qualified to judge, still, one cannot help noticing that the efforts of the Institute over architectural education have, at any rate, left their mark, and that the rank-and-file architect has, I venture to say, so benefited that he is considerably better educated than was the rank-and-file architect of a hundred years ago. But my opinion upon that is worth nothing. I do not want to criticise the bad effects of the possessive impulse in your case—I do not know enough about it. Perhaps you will allow me to say one thing, as it occurs to me. I have never yet seen my way out of the dilemma of the architect in respect of his charge by a percentage on the gross cost of the building. I have no reason in any way to complain of architects, or to criticise architects in that respect; but, logically, it is a very awkward dilemma to be put in. As one architect said to me once, "I have had a very hard day's work. I have been from morning to night up and down a building, and the result is I have knocked at least £20 off my remuneration." You will understand that. I think the profession does stand in a somewhat illogical position, shall we say, in reference to the method of its remuneration. And I have nothing to suggest to you as an alternative.

I would make a criticism not on the architects, but generally on the brain-working professions, to which architects are probably less exposed than others, though about that I do not know. The ordinary type of brain-working professional is a man who works for what we call a fee, for a succession of clients, by himself, for himself. And therefore all professionals tend to think that they should be regarded as alike, as it were, and interchangeable. And you know how far the doctors have gone in assuming that all doctors are interchangeable. In modern times there is much to be done by what is called scientific management, what I may call "team work." Let me give you a case in point concerning dentists. We want ten times as many dentists to do the work of dentistry as we have got. But I do not know that we want every one of them to be an M.D. in order to specialise in dentistry. If you are to have enough dentists for the population, you may have to have four or five grades of dentists: one man for extracting, one for conservation work, one as a consultant, and so on. Doctors and dentists would be much opposed to that. I do not know if we shall ever get sufficient of them to serve the whole community, instead of only the richer fraction, if we insist that each professional must be self-contained. If we are to get the work of the community properly done, for the whole of the community, we shall have to have, generally, more team work in the professions. I do not know how to apply that to architecture; I throw it out as a suggestion.

The chief fault of a professional association is its approach to exclusiveness. As soon as it gets into the saddle it wants to make arrangements about entry into the profession, the length of servitude or apprenticeship. You cannot help detecting a trail of a tendency to exclusiveness in nearly all professions: I will not say anything about architects at all. That exclusiveness takes certain forms. One profession says it will not allow anybody in who has not been apprenticed at a high fee to one of its own members, and the result is it makes its membership extremely profitable because people are willing to pay the high fee to get into the profession. I think that is invidious. Architects are not guilty of that, but I draw your attention to one particular form of exclusiveness from which it is difficult to get away, and it is one which is injurious. Has it ever occurred to you that we have been, and are, drawing practically all our statesmen, our lawyers, our doctors, our ministers of religion, for that matter, our authors, our editors, our architects, from about ten per cent. of the population—namely, the ten per cent. whose parents are able to give them some sort of secondary education in adolescence? Only ten per cent. of the community can give their sons secondary education at present, and therefore all the professions which make a secondary education a condition of entry—and it seems obvious they must exact some amount of education for entry—are necessarily excluding from their profession potential geniuses who are born in the general population. That is a dilemma which I do not think, in any one profession, can be got over; it can be only got over by such an extension of the means of secondary education that the whole population can have it, so that you will be able to draw your potential architects and doctors from the hundred per cent. of the population, instead of from only ten per cent. And, it seems to me, we have allowed a very large amount of potential professional skill, if not genius, to go to waste because we have shut the door in the face of ninety per cent. of the population by this requirement of secondary education. This inevitable exclusiveness is rather serious, and it behoves every profession not to make it worse. You must insist on a certain amount of education, on a certain amount of apprenticeship training; but it is to be detected in professions that they rather want to make that training long, and they insist on keeping up the length of the servitude, irrespective of whether it is necessary or not. For instance, you cannot become a doctor in this country under five full years of academic professional training. Even though you may be a genius and can scamper through the instruction in three years and pass the examination with flying colours, you are kept down to the pace of the average man. You notice how, necessarily, that increases the expenses of the young man who wants to be a doctor, and so it has an invidious exclusiveness. Therefore, in arranging a curriculum and arranging the length of training—to say nothing of the fees—the tendency to exclusiveness has

to be watched. The natural tendency is to keep it all up ; and it is a very reasonable thing to want to advance the profession and maintain the standard of qualification, and all the rest of it, but it has the adverse effect of producing exclusiveness.

A much more serious exclusiveness, really, is this. You know, every profession tends to be governed by the people aged fifty-eight—(I am fifty-eight)—by the elders in the profession ; it is inevitable. I used to think it was a bad arrangement ; but being fifty-eight myself now, I perhaps take a different view. But the result is that it is governed by men who were brought up thirty years ago, whose technique is the technique of thirty years ago, whose knowledge of education relates to the education of thirty years ago. I suggest that there is a tendency in professional associations to ignore, honestly to ignore, the new technique, new methods, which the average elderly member is not personally acquainted with. I do not want to talk about architecture, but I can see it in other professions very obviously : that the elderly man in the profession cannot believe in the necessity or the excellence of what is new, of what was unknown when he walked the hospitals or when he was apprenticed or served his articles. That tendency to be bounded by the current technique, which is generally the technique of the old generation, is apt, in an advancing avocation, to produce undue resistance to the incoming of the new technique. I do not know what the buildings will be made of in the next generation of the new England after the war ; it may be that they will be built of aluminium or of basic slag. But I very much suspect that the new material, whether it be basic slag or aluminium, will have to overcome a certain amount of prejudice before it is cordially accepted by the rank and file of the profession. This tendency towards conservatism needs to be watched and overcome.

To come now to the point which I ought to have begun with : What is the proper sphere of an architectural society ? You will have gathered from what I have said that it is founded on the creative impulse. It ought to aim at promoting its vocation. It is strengthened by the fellowship impulse in the way of social intercourse and benevolence. It is, I fear, always subject to the possessive impulse : its members will endeavour to get as much, collectively, for the vocation from the community as they can. All that they are entitled to from the community is enough to maintain their services at the highest point of efficiency. But in the estimate of what that is their bias will be to get as much as they can. That fellowship and creative impulse I need not say much more about ; fellowship I need say no more about. The creative impulse must be the fundamental purpose of the professional association, to promote its art, its vocation, in all sorts of ways. A legitimate part of the possessive impulse is its defence, defence both of individual practitioners against the lay community, and of the profession as a whole against that lay community ; it must stand up for the profession. It must insist on the profession

having its proper place in the world ; otherwise it will be steam-rollered by other interests.

Now I come to my three things which may be more new to you. The association is entitled to claim participation in the government of the profession. Every profession needs to be regulated in all sorts of ways—conditions of entry, conditions of training, ethical code ; it may be registration or what not. And the professional association is undoubtedly entitled—it does not do its duty unless it claims to be entitled—to participate largely in the government of the profession. But I do not think that, from the standpoint of political science, the profession can be allowed to govern itself. There I differ from the vague functionalism or vocationalism which I said was prevalent. I do not think any profession can be allowed to govern itself. Take a case. It cannot be allowed to determine the conditions of entry ; otherwise it makes the profession a monopoly. We want it to help in deciding what ought to be the conditions of entry, but the State could not allow any profession to exclude any people it chose to exclude, under any conditions it chose. It must help the State to fix the conditions of entry, but the State cannot allow it to fix the conditions itself. Otherwise the teachers might say, "No one shall come into the teaching profession except the sons of teachers," or it could be made very much more onerous to enter the profession. That has been done in other occupations in the past. Similarly about the training. A professional association ought to take a large part in prescribing the conditions of training, but you cannot give it complete power. And that for several reasons. First of all, because the governing body is apt, as I have said, to consist of people of fifty-eight, and you cannot allow older people to settle the conditions of entry, because they are not up to date ; nor can you give it to the young, because you cannot trust them. They might prescribe a training which they thought was in their interests, but which ran counter to some other profession, or was against the interests of the community at large. Supposing doctors were to say that the art of doctoring was so wonderful and great that no one should be allowed to practise until he had been under education for ten years ; the result would be to limit the number of doctors and send up the price of doctoring. Therefore we could not allow doctors to make a ten-years' limit, nor could we allow architects to put a similar limit upon the period of preparation. And likewise about professional ethics. An ethical code is all very well, but it might take on a form which is inimical to the common weal. Some professions have established codes which are in some respects inimical to the public interest. But the society ought to participate in the government of the profession.

And now I want to mention two other functions which are not generally thought of, and this is serious. I came here, if I may say so, to put this idea to you. First of all, a very large part of the public function of

a professional association seems to me to be one which it has not, to any great extent, yet exercised : and that is it ought to claim the right and the duty of criticism of everything that is done by the Government, or, for that matter, by any public authority, in the lines of its own profession. It ought not merely to make that criticism in an irresponsible way, but it ought to regard it as its duty to inform the Government of the day of the professional opinion upon every kind of act which is done by the Government, or left undone, on which the profession has a distinct opinion. One of the very worst elements of our present Government, of what we call bureaucracy, is the secretiveness of official administration, and the suppression by that official bureaucracy, as far as possible, of any professional criticism of its work. Any architects who are in the Government service are not allowed to criticise the decisions or acts of their Government Departments from the point of view of architecture. There is a curious difference in this respect between the municipal and the Central Government services. The local government service does have a lot of professional criticism. The Institute of County and Municipal Engineers, for instance, is always full of criticism in its *Proceedings*, its publications ; and at its meetings it has papers criticising this or that drainage scheme, or electric light works, from a professional point of view. It does not hesitate to say that a plan has such and such faults. But you find nothing of that kind from the professionals in the Central Government ; they are not given an opportunity, they are not allowed, to give that sort of criticism of the work of the Central Government Departments. Perhaps that regulation is necessary ; I do not know. But if it is, it makes it all the more necessary that some professional criticism of the Government service should be supplied by the professional association. And I would like to see it the duty of a professional association to keep constant supervision, and a very critical supervision, over all the acts of the Government, or any Government Department, or any public authority, falling within the realm of its profession ; and to put that criticism publicly on record, and bring it definitely to the notice of all the Government authorities with the view to supplementing the, perhaps necessary, secretiveness of the bureaucracy, and at any rate supplying that criticism without which a bureaucracy can never really be healthy. I would go further, and say that I think the Government, either particular departments or the Government as a whole, ought to have professional advice and counsel in each vocation. And I would have each Department arrange to have a standing body of professional advisers to whom I would give no power whatsoever. Let it express its views freely and publicly on all the projects and doings of the Government, in a report which should be laid before Parliament and definitely published, and, of course, in an uncensored form. I think every Ministry ought to have an advisory professional council of the profession with which its work is concerned. And whilst

that advisory council should have no power whatsoever, it should have a free initiative to say what it liked, the power of publishing its reports, when it thought fit to do so, in an uncensored form.

My third point is this. It seems to me that it is the duty of a professional association—and this is a duty which, I think, no professional association, except one, has yet seriously undertaken at all—to bring to the public notice, and to agitate for, the supply of a sufficiency of its service to the community as a whole. Let us begin with the doctors. The professional associations of the doctors have looked after the interests, as they thought, of individual doctors, and they have done their best to get individual doctors properly treated, and the profession as a whole properly treated. But the medical profession has not made its voice heard with regard to the service which it has to render to the community as a whole ; it has not clamoured for seeing that there was a proper professional medical attendance and treatment supplied to the whole community. I hope I am not saying anything too hard, but practically the brainworking professions began as the body servants of the rich, and they have not yet sufficiently realised that it is their duty to have developed out of that to become the servants of the community ; they have not yet managed to make their service available for the whole of the community which needs their service. They still serve, on the whole, Mammon, and Mammon alone. And, unfortunately, the great mass of the community still has to go without the services which the professions do render to the rich and ought more and more to render to the community in its collective capacity.

If you ask me to apply that to architecture, I am in a difficulty. I cannot help noticing that in the early days of your association—to go back to the early Victorian times—architecture was thought of only as a luxury for the rich, and, even to the end of the nineteenth century, that it could be said that ninety per cent. of buildings did not require an architect ; only those buildings which it was expected or desired should be beautiful required an architect. And that seems to be a totally unworthy view of architecture. It is the duty of architects to claim that they shall be responsible for all buildings, including town-planning. And when you consider the awful buildings and the awful town-planning to which the great mass of England is still subject, the need for more architecture and better is surely very obvious. It should be the aim of the architectural profession to claim that the service which it can render, the service of architects, should be supplied in sufficient quantity to be available for all the buildings and all the town-planning of England. It is a reproach to the profession that any town should be badly laid out. I do not say it is the fault of the profession, but I hold it up, as an ideal, that its business, as an association, is to demand that such arrangements shall be made as may be possible so that the service which the profession can render to the community should be available in sufficient quantity, and

of sufficient quality, for the benefit of every person in the community, and not merely as a luxury for a rich class. That is a very big claim to make for a professional association. I am asking that the professional association should not only have this work of elevating the profession, looking after the profession, regulating the profession, as much as it is allowed to do, but I have said it should claim a large participation in the government of the profession, but not the sole government of the profession; that it ought to make it its business to conduct a regular, authoritative, public, responsible criticism of everything that the Government does, that any public authority does, in the sphere of its profession. And, above all and supremely, it ought to regard it as its duty to claim, in season and out of season, that the services which the profession can render to the community should be available in quantity sufficient to enable every person in the community to get the benefit of the service.

MR. W. E. VERNON CROMPTON [F.]: I rise to propose an enthusiastic vote of thanks to Mr. Sidney Webb for the speech which he has given us this afternoon. I did not know until a moment ago that I was going to be asked to propose this, but I feel so heartily on the subject myself, and I am sure that the various points which he has given us this afternoon are so vital to us as an Institute, as well as to us as individual members, that I do not think I am going too far in saying I almost consider this meeting may be a starting point for a new policy for this Institute of a very much more drastic type, of very much better national service than we have hitherto thought it our duty to take up. I had prepared something to say this afternoon on the subject of the proper sphere or function of an architectural society, but seeing that Mr. Webb has to go away so soon, I think I had better withhold that, because it is on a slightly different line from that which he has taken up. He has dealt mainly with the internal functions of the architectural profession, whereas I was wishing to deal, more specifically, with the external functions. I think the time remaining will be better spent by asking questions, and getting a further elucidation of points which may not be quite clear.

Mr. Webb was, I thought, somewhat apologetic to commence with, and led us to think that he did not know very much about architecture and architectural relations and functions; but to any of us who have read—and I hope most of us have read—that most remarkable article published by *The New Statesman* on "Vocational Organisations," by Mrs. Sidney Webb, it will be evident that both Mr. and Mrs. Webb have gone to the bottom of the whole of this question of professional organisations, and this vocationalism which is going on before our eyes.

MR. H. H. WIGGLESWORTH [F.]: I have much pleasure in seconding the motion of thanks to Mr.

Webb. I wish to express the great pleasure with which we have heard him. The public criticism which he suggests would be very valuable. Architects have great diffidence in criticising the architecture which is carried out by their professional brethren, and because of the lack of that criticism a low standard of architecture prevails. I think an Advisory Council would be very valuable, because it would to some extent remove the personal element.

Private practitioners generally consider that official architecture is not what it should be, they feel that the official is in a dependent position and that he cannot, therefore, advise from the proper standpoint. Mr. Webb explains that no architect in Government service is allowed to criticise the decisions or acts of a Government department from the point of view of architecture. This in itself is prejudicial to the best results, and the art which we architects endeavour to promote suffers accordingly. If Mr. Webb could give us some light on how to set up this proposed Advisory Council, it would be very valuable to us.

MR. MAURICE B. ADAMS [F.]: I was much interested in reading the report which Mr. Sidney Webb sent me of the articles which have been referred to here this afternoon, but, as I told him at the time, I thought he had not quite done justice to the "private architect" when he suggested, as I think he did somewhere, that architects in private practice had not extended to the "salaried architect" altogether the consideration that he deserved. This afternoon we have been reminded that the salaried architects, particularly where employed by the State, are not allowed to express any opinions on what is being done by their department, and Mr. Webb urges the Institute to criticise such official work. But by doing that, surely we who are private architects thus acting in the Institute as a representative body must incur the responsibility of being further blamed at some subsequent period for being unjustly critical perhaps, or as having failed to bestow sufficient consideration for the difficulties peculiar to the salaried architect. I fancy there has always in this Institute been considerable reluctance, and I have felt how unwise at times this reluctance was, though I quite see the risk of being reckoned invidious on the part of such a body as this Institute. It might be also said, So-and-So is a Fellow, and you are criticising him very unfairly because you do not know the difficulties under which he works nor how differently he would work if he had a free hand. The well-meant criticism is misunderstood, and so not taken at its true value. The idea is suggested by Mr. Sidney Webb to-day for the first time—at any rate, I have not seen it mentioned before—that the Works Department of the Government should have an Advisory Board or Committee, whose duty it should be, *ex officio*, to criticise architectural projects. If that idea materialised the invidiousness I have referred to would be removed. Of course it is not for us to initiate such a proposal, however willing

we are to promote it. The Government looks very suspiciously on the action of any professional body seeming to assert itself. If Mr. Sidney Webb could tell us how to help to bring his scheme about, other than by button-holing Cabinet Ministers, and so on, it would expedite matters because all who are present here will agree that it is a most excellent idea. It would not only be good for architects, but also for other professional bodies, if their voice could be heard in this semi-official way. When we know certain things are going to be done officially, we get very concerned, and the Council consider, and ultimately a letter is sent to *The Times*, or they conclude it is better to leave it alone entirely, as we might otherwise give offence. And so things slide on from time to time, things that are very much to be regretted, apart from the interests of individual architects as architects, because it must be recognised that primarily this Institute, to be worthy of its name, should be governed by the idea of what Mr. Webb has called this afternoon the *subject* of our craft—that is to say, we are here to promote good architecture, our disinterested idea being to further architecture as an art. I only mention the practical difficulty in our criticising the work of salaried architects, whether they are directly employed by the state, or by Municipal bodies or Boards of Education. Often they do most expensive work which as an item of cost no one ever can find out, and this fact is not very satisfactory either when considered particularly in regard to what architects in private practice are expected to accomplish for the money at their disposal.

MR. H. V. LANCHESTER [F.]: I should like to say a few words on the three claims which Mr. Webb suggested we should make. It is encouraging that he should have put before us these three definite claims, because we have begun to nibble at them already. I need not expatiate on the subject of our own government, and on our methods with regard to training and ethics. It is obvious that whatever we recommend ought to be approved by the State, or criticised by the State. In regard to our own criticism of public projects, we have now and then made good our point. In the recent case of the Charing Cross Bridge Bill, for instance, certain provisions were introduced into the measure owing to the initiative of the Institute, and there is every hope, I believe, that in the future that will not be overlooked by the Government. But on the third point, the methods by which the services of our profession should be secured wherever they will be of value, I would put a proposition, and ask Mr. Webb what his views are. We are quite willing, and I believe we have the strength in our professional societies, to offer the services and to do practically the bulk of the work where architects' services are needed. But there is a very great difficulty owing to the Government Departments having always been obsessed with the notion that they must work by means of a departmental staff. The same applies to local authorities. If there could be

some method by which those departments could have what is termed a panel in another profession from which they could draw competent men for special services, would it not enable the profession to be enlisted wherever their services are desirable, and get through the immense amount of work that is waiting for them, and extend their services to the whole community, instead of limiting them to the few, as has been done in the past? I want to suggest the principle of a panel because many of us are convinced that the system of departmental offices is, however good the men filling the posts, inconsistent with the genius of architecture. The departmental responsibilities and details, and the way the architect there has to do his work, are such that the architect is dragged away from that freedom of outlook, that possibility of keeping his mind fresh and open to new methods—keeping young, in fact. Mr. Webb talks about the age of 58, but the exercise of a profession such as ours keeps men of 58 at 38—so if there is a possibility of reorganising what we may call the official work in such a way as to draw on the profession at large, it would be a great gain to the community.

PROFESSOR W. R. LETHABY [F.]: I am entirely in accord with Mr. Sidney Webb, and it is a pleasure to hear him speak again. I have heard him speak at Technical Education Boards, and he still retains his delightfully conciliatory way. There is no need for him to apologise, because he has said nothing harsh, and his address was most delightful. The only little point I would put to him is this. He spoke to us of our duties—I think properly and rightly—and I suggest to him the reciprocal view, that the community should be a little more willing to accept the public recommendations of architects. They do not do that: they have their own ways of appointing people to public offices, people who are doubtless very valuable, from many points of view, but are not people who represent their calling. They are not the best people of their time, but boards are very jealous of any outside advice on these things. The part of Mr. Webb's address which specially interested me was that towards the end, where he spoke of the possibility of sorts of councils of wise men. We do need that in England, to get outside the dreary, and quickly becoming vicious, circle of politics: we do require some possibility of drawing on the experience and wisdom of the community.

MR. SIDNEY WEBB, in acknowledging the vote of thanks, said: I agree with Professor Lethaby; the community has been greatly to blame—it has fallen short, perhaps, as much as the professions. We must try and make them both better. I do not think my suggestion of supplying a sufficiency of the service has been quite understood. I do not believe you will supply a sufficiency of architecture by any arrangement of a panel, or anything of that sort. The

reason why architecture was a luxury of the rich in the past, and still is, to a large extent, a luxury of the rich and of the public departments, is because it is expensive. There is no magic way by means of which you can bring a service which is necessarily expensive within the means of the poor. There are two ways. One is, you might make the poor cease to be poor. But that would take me too far afield to-day. The other way is, that you might take care that that which the poor cannot pay for individually, the community, if it thinks it necessary in the public interest, should pay for. It is what we are doing about teaching and about doctoring, about one profession after another. We are supplying the service of the profession to everybody who needs it, at the common expense. This is how, I think, architecture can be supplied for the needs of everybody who needs it, and not merely to the rich. I am afraid this leads in the direction of a departmental staff, and that leads into a controversy that I cannot enter into here.

With regard to the question as between the salaried architect and the architect on the panel, the analogies of another profession are not very promising about that panel. I am not sure that the buildings, on the whole, which have been put up by the London County Council architectural staff do not compare favourably with the buildings put up by the London millionaires. I think they do. But it is perfectly true that what you call the genius of architecture may not flourish in that process. I face it : it may be that the way to get the finest flower of architecture may be to leave it as a plaything for the rich patron. That may be the best way. We have had some great art in that way, though the rich patron in past times was very often the communal patron, and the best things have perhaps been done by communal patronage. I would remind you of the cathedral at Florence, and much of the work of Greece, produced by municipal effort, though they did not always call it municipal. It is necessary to remember it was the municipalities and the public authorities of the cities in those times which produced architecture. I am not looking on architecture for the moment as an art, but as a service. If the community gets it as a service, perhaps Art will look after itself : I do not know. Then with regard to the professional association's criticism of the Government action. Take the official, the architect in a public department. I know you cannot criticise his design : it would be awkward. You meet him in social intercourse, and anyhow he has done his best, and you do not know what the Permanent Under-Secretary of State said to him. But why should he be treated as an artist at all ? Why not criticise the architectural action of the Office of Works ? You might ignore the design and criticise the architectural action of the Office of Works, criticise its policy and practice. There is much more in the building than the design ; more in the practice and policy of the Government Department than the planning of the building. And that is where the criticism of the

profession might be better directed than to the particular design that is put up.

The trouble about advisory councils in the past, from the point of view of Ministers, is that they have been too touchy ; they have imagined their advice was going to be taken ! A very wise man said, "Never take advice." I have acted upon it all my life. He went on to say, "Listen to advice and take hints." What the advisory council might reasonably expect is that its advice should be listened to and, occasionally, hints taken. May I say, as one who has been inside a Government office for many years, you do not know, outside, the conditions of the problem : the Government office knows it from the inside. But that is no reason why you should not advise, though it is a reason why the Minister will not take your advice. It is his business, with his expert inside knowledge, to take hints from the advice you give him, and thus obtain from your advice invaluable help for what he has got in hand. But you must not expect to know enough to give him advice which he ought to accept. Therefore be content if he listens to your advice and takes hints. The most important thing I say to you is this : it would do an immense amount of good to the position of the professions in this great democracy if the professional associations would make it their primary and permanent duty to be always considering and insisting how the service which their profession exists to render to the community can be made available in sufficient quantity to be enjoyed by the whole of the forty-seven millions of this country, instead of only five or ten per cent. of them, which is what the brain-working professions have hitherto mainly served. And I suggest that the democratising of the service of a profession may be the basis of its new development in the twentieth century not less glorious than anything that it has achieved in the past.*

THE PRESIDENT : I am sorry Mr. Sidney Webb had to go, because one point I was going to put to him, when he suggested we should endeavour to make our services available to the poorest of the community as well as to the richest, was that it is exactly what we are trying to do now about the housing question. We are pressing our views upon the Government, that we should be allowed to do our best for the poorest classes, and, fortunately, we are succeeding. That is being done in exactly the way suggested, at the public expense, because the Government is proposing to subsidise the bodies who are to carry out this work. With regard to criticism, I think there is a tremendous lot in that. Criticism is, to my mind, the most valuable thing you can have. And not only would I like to see criticism passed on work done by a public authority, but a good deal more criticism amongst ourselves. I do not think we should be thin-skinned about it. I would

* Mr. Sidney Webb at an earlier stage of the proceedings mentioned that owing to another engagement he would have to leave early, and at the conclusion of his remarks he left the meeting.

always rather have a man tell me when I have done something bad or something commonplace than be merely complimentary. I know that in the case of some men if you hint a word of adverse criticism they are up in arms at once, and take it as a personal insult. That I think is a foolish state of mind altogether; honest criticism ought to be much more indulged in than it is.

With regard to exclusiveness, I am afraid that is our failing, and the tendency is towards getting even more exclusive. That, however, is a thing you cannot very well help; you want your society to be composed of competent men, and you must make it exclusive, at any rate to the extent of keeping out those who are incompetent or undesirable. That seems to be the essence of all societies: they must be exclusive.

What occurred to me all the way through Mr. Webb's discourse was what a very valuable discourse it was, for it was on a totally different line from anything we have had put before us in the ordinary way. Mr. Webb has got an extraordinarily analytical mind, and he has put things to us which I do not think have ever occurred to us before: the sort of purposes for which we exist, and the lines on which we might, and ought to, develop. It seems to me that is a most valuable thing. I would have liked to have heard him go on much longer.

PROFESSOR LETHABY: Let us have some more.

THE PRESIDENT: I am afraid there are very few men who could talk to us like that. It was a very valuable discourse, and we shall find it as interesting to read as we have found it to listen to.

Mr. W. E. Vernon Crompton [F.] and Mr. H. H. Wigglesworth [F.] have handed in the following notes, which would have been read at the Conference had time permitted.

Notes by MR. VERNON CROMPTON.—The functions of an architectural society may be considered from two points of view—there are the internal functions, having to do with the control of the profession and the relations of the various members to each other, the teaching of pupils and admission to the profession, the regulation of examinations, etc., with all the paraphernalia of standing committees, boards, etc. This particularist and sectional point of view is that which has been most emphasised in the R.I.B.A.; we shall fail, however, to understand the reason for an architectural society in its larger sense unless we attach quite as much importance to its external functions, to the way in which it is, or ought to be, linked up to life generally, and more particularly to that great industry and national service of which it forms a part.

I venture here to deal with this latter point at the risk of covering some of the ground which would naturally receive attention on June 12th next, when the question of the proposed Parliament of Building Trades is to be considered.

My excuse for this premature outbreak is twofold—firstly, it is impossible to deal with the external functions of an architectural society without considering and understanding the functions of the building industry as a whole; secondly, unless the R.I.B.A. keeps in close touch with the changes pending in the organisation of the building industry, it will probably find itself neglected and left out in the cold instead of taking its place naturally in proper co-ordinated relation to these impending changes.

For this purpose it is necessary first of all to consider the nature of the organisation of and to review the tendencies to change in the building activity of this country to which an architectural society should form a properly articulated part.

Like many other analogous human activities of Western civilisation, the industry of building commenced to change its structure rapidly some hundred years ago, and from being, relatively speaking, an actively homogeneous, a single thing, it gradually became a desperate complex thing, having many unco-ordinated parts which are found to be resolvable in most industries into the three well-recognised categories of Finance, Management, and Labour, but in the building industry into an additional category represented by the architects and engineers and to a certain extent by the surveyors.

All these branches of the great industry of building are casual in their relations, often separated as regards their functions, and opposed as regards their interests.

So far the existing architectural societies have regarded this as a matter to be deplored, but have not considered it to be their duty to interfere. This detached attitude is a mistake. With a view to making this more evident, I wish to draw attention to three recent publications which give a fairly clear indication of the trend of events.

The first is "A Memorandum on Industrial Self-Government," with special reference to the building industry, prepared by Mr. Malcolm Sparkes, at the request of the Rt. Hon. J. H. Whitley, M.P.

This memorandum contemplates the setting up of a council in the building industry representing management and labour in equal numbers, in order "to promote the continuous and progressive improvement of the industry, to realise its organic unity as a great national service, and to advance the well being and status of its personnel. To arrange for adequate technical training for members of the industry; the reform of blind-alley occupations, the *improvement of processes, design, and standards of workmanship, research, and apprenticeship*," and to emphasise a "closer association between industry and art," etc.

The second publication is a "Memorandum on the Industrial Situation after the War," prepared at the instance of the Garton Foundation. This memorandum reviews the current problems in connection with all industries, and arrives at conclusions strikingly similar to those of Mr. Sparkes. The points of special interest to architects may be generalised as follows:

Supreme boards of control, with district committees, are proposed for each industry, in many of which "*it would be desirable to find a place on the Council for representatives of the applied arts, both with a view to raising the standard of design and workmanship and with the object of encouraging the human and creative interest in production.*"

The Boards would "serve as a protection to established workshop and local craft traditions against the deadening tendency to a mechanical uniformity." In addition to the promotion of internal prosperity, the Boards would be able to give public utterance to the views and needs of each industry in relation to the whole national life. *They would take account not only of economic but of moral and aesthetic values,*" etc.

The third publication is the "Interim Report on Joint Standing Industrial Councils," prepared by a sub-committee of the Reconstruction Committee, of which Mr. J. H. Whitley is Chairman. It was presented to the House of Commons through the Prime Minister, and received favourable consideration. This report followed Mr. Sparkes's proposals with certain important omissions, the gist of which omissions is practically covered by the sentences printed in italics above.

After this somewhat long introduction, it is now pertinent to enquire whether it is not the pressing function and duty of an architectural society to insist upon the importance of the omitted items. I would go further, and claim that the R.I.B.A., as an integral branch of the building industry, should have adequate representation on the industrial councils above mentioned, in order to ensure that the architect's point of view should have proper consideration in any contemplated reorganisation of the building industry. These points of special importance to architects will be found to coincide closely with the points omitted from Mr. Whitley's interim report to Parliament, and can be summarised as follows :

- (1) The training of pupils and apprentices and their condition of entry.
- (2) The maintenance of a high standard of design and workmanship.
- (3) The prosecution of research and experiment.
- (4) The improvement of the status and influence of the industry.

As regards the first point, the training of pupils and apprentices, etc., this would seem to imply a co-ordinated scheme of education for the building industry considered as a whole—a scheme in which architects, engineers, management, and labour would act and react the one upon the other to mutual advantage, in which case architects would probably lose much of their sentimental romanticism and might gain logic and scientific directness—a consummation devoutly to be hoped. Engineers might lose much of their spiritual crudity and gawkiness and gain a truer sense of the value of appearances. Management might realise that national service was an ideal to be

striven for rather than material gain, and labour might be induced to blackleg the shoddy and to emulate the old guildsman as regards the unimpeachable quality of work.

The second point as to the maintenance of a high standard of design and workmanship is a corollary of the first, and certainly comes within the province of the architects and engineers, who may properly be regarded as specialists in the quality of design and workmanship.

For this purpose alone architects and engineers surely have a legitimate place upon any industrial council or board of control formed for the purpose of regulating the building industry.

The third point, as to the prosecution of research and experiment, is also a collateral consequence of the first, for any broad and properly organised system of education on a vocational basis would link the building industry to the universities and laboratories throughout the country.

It is not only lack of funds but lack of specialised knowledge that has prevented architects in the past from solving many of the problems for which it is rather the duty of the industry as a whole to find the solution, by providing the funds and the experts for practical experiments, with parallel research, more theoretical and purely scientific, conducted in the university or State laboratories.

Unless architects realise that it is a pressing function of their society to insist upon representation upon the Industrial Council of the Building Industry the numerous problems of special architectural importance awaiting further research, such as the acoustics of buildings, would probably be overlooked or shelved.

The immediate need for further general research goes without saying, in view of the difficulty the country will continue to experience in finding substitutes for restricted or unobtainable materials.

Lastly, as to the improvement of the status and influence of the industry : doubtless the carrying out of a programme based upon the three points already mentioned would do much to improve the status of the industry; but the external aspect of the case must not be overlooked.

A unified Guild of Building would have much more influence in guiding the country aright in their own special sphere and in expressing considered and weighty criticism of Government action—to adopt Mr. Sidney Webb's suggestion—than any sectional effort on the part of architects acting alone.

I trust it is now evident why it has been necessary for me not to adhere too strictly to the subject set down for this afternoon's discussion, in order to emphasise one point—namely, that it is primarily the function of an architectural society at the present time to assist in promoting a better organisation of the building industry of the country.

The gradual growth from within of a guild dealing with the whole activity of building to which the

functions of an architectural society—*i.e.*, the R.I.B.A.—are properly articulated would do much to see us through the difficult times ahead, and would be undoubtedly a great factor in overcoming that indifference to architecture—even when it is bad—so characteristic of our nation at the present time.

Notes by Mr. WIGGLESWORTH.—The functions of an architectural society, like those of the human organism, should be governed by the two inseparable faculties, the mental and the physical.

The first concerns the general diffusion of architectural education, not only amongst architects, but also amongst the people.

The second, the physical faculty, concerns the welfare of the architectural profession with its corollary, the protection and preservation of architects.

If architecture or architects are to flourish, an effort should be made to enlighten the whole community and to evoke the utmost interest in architects and their work. If the conditions prevailing in architectural practice are unsatisfactory architecture will languish, men of talent will not be enlisted and only those of lower status will remain.

Mr. H. A. L. Fisher, President of the Board of Education, has been taking active steps in the new development of education. In a recent interview he commented upon the neglect of music, and referred to the great solace music would bring to industrial populations when overstrained. In his opinion the general diffusion of musical knowledge and taste would elevate the whole community.

Mr. Fisher's remarks are equally applicable to all the arts; and, when one considers the important position architecture should take in our lives, neglect of its study seems culpable.

The Royal Academy, the Worshipful Company of Carpenters and many of the Universities have maintained a tradition of delivering public lectures on architectural subjects. Their example has been followed by other private and public bodies who have found considerable support. Visits to historic buildings and to various sections of the museums under the guidance of experts and others in authority are also taking place, a happy evolution from the aimless sight-seeing of the past.

The systematic development of architectural knowledge, to be successful, should properly be commenced in the schools, and continued through the technical colleges as well as amongst the community.

Here is a vast field of operations, and who can direct it better than architects themselves?

To evoke interest in the romantic history of the past and in the splendid possibilities of the architectural future is a most inspiring theme. Many architects could here find happy employment, and a volume of sympathetic appreciation would be created. Such an undertaking is surely an appropriate function of an architectural society. It would swell the current of the present stream of knowledge on the subject,

awaken the latent sense of beauty and elevate the whole standard of architectural taste.

Those naturally endowed with an interest in architecture would be most valuable recruits to this work of education, and would be helpful in disseminating interest.

If the narrow limits of eligibility to honorary membership now imposed by most of the architectural societies were once removed it would encourage the effort required to achieve our object. Honorary associateship and honorary fellowship once offered with true fraternal spirit would conduce to closer union with painters, sculptors, craftsmen and others interested in art, and have a stimulating effect upon us all.

The present activities of the existing societies require extension to meet the interests of a wider circle. Exhibitions of architectural photographs, drawings, arts and crafts need not necessarily be the sole prerogative of the Royal Academy, but should be regularly initiated by architects' societies.

The architects' journal, too, should be enlarged to meet an ampler field of operations; contributions from its lay readers would be invited and enjoyed; purely professional information being reserved for distribution amongst professional members.

Another matter claiming attention is the encouragement of architectural interest and knowledge amongst those actually engaged with us in building. Architects have not lost contact with the craftsmen, but their interest has hardly extended beyond them. It is surely the duty of the architect to enter into closer community with all the tradesmen engaged upon his buildings, so that the beauty and significance possible in even the most trivial operation may be developed to the full.

The professional societies have done much to improve architecture by raising the standard of ethics and education amongst the members, and this policy only requires to be extended amongst all practising architects to have a really marked effect. Such union as this connotes would create a more congenial atmosphere for architecture, and would have a beneficial effect in establishing a common aim. It would tend to the evolution of a canonic type, lend itself to greater harmony, and do much to eliminate the discordant element so visible in the architecture of our streets.

The narrow views of some of the professional bodies have happily not succeeded, and such a liberal art as ours should surely decide to open wide the professional door.

The present insignia of qualification may continue to be reserved for those who have passed the necessary tests; but every architect, including assistants and students, should possess the inalienable right of inclusion in the ranks of their professional brethren.

The vast increase of power attained by united effort would be of great material benefit. Architects would be enabled to obtain direct parliamentary

representation by which their rights could be proclaimed and respected—an attainment almost impossible without the weight of numbers. Legal defence, which would become a standing charge, would entitle every member to free advice, and it might reasonably be expected that the society would acquire an almost impregnable position and regain much of the ground lost in recent years by State, civic and commercial encroachment. Benevolence now left to voluntary effort hardly reaches a tithe of those who suffer from misfortune. Justness requires the provision of funds which should be scientifically assessed, collected and applied so as to establish a true relationship between those who can and should assist and those who need assistance. Many duties now left to private enterprise require to be included within the sphere of operations of the society. Information now individually gleaned as to materials, methods and firms should be co-ordinated and made available to all practising architects.

Close association is wanted with all professional societies, federations and trades unions if architects are to enter as fully as possible into militant life.

The Builders' Parliament now coming into being gives promise that some concordant policy may be evolved; and who are better fitted to mediate and advise upon disputable subjects than architects who are trained and experienced in giving impartial decisions on all that concerns the building?

CORRESPONDENCE.

The Place of St. Paul's in Art [p. 17].

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Professor Beresford Pite was no doubt speaking from memory in his lecture on the Place of St Paul's in Art (JOURNAL for November), and will, I hope, permit me to call his attention to one or two inaccuracies in his eloquent and suggestive address.

(1) Professor Pite says that in 1612 Bernini was already 23, and that in 1665 he was 67; but if he was 23 in 1612 he would be 76 in 1665 and born in 1589. As a fact he was born at Naples on 7th December, 1598 (Fraschetti).

(2) "Primiticcio the modeller and Vignola the architect had both worked for him" (François I.). This is true in a way, but misleading in the context. Primiticcio went to Rome in 1537 to purchase antiquities and casts of the antique. At Rome he met Vignola and brought him back to France to supervise the casting of the plaster casts in bronze (Daviler).^{*} But in the first place Primiticcio was a very attractive painter and decorator, not a sculptor or modeller or even an architect, *pace* M. Dimier; and Vignola was not employed by François I. as an architect at all. Nor, indeed, could one imagine the architect of the Jésu and Caprarola taking any part in the architecture

of François I. Professor Pite omitted to mention Serlio.

(3) Professor Pite says that Wren "records that he met Mons. Mansart; that is François Mansart, aged 67—not Jules Hardouin Mansart, aged 19—who after this designed the dome of the Invalides and completed it long before Wren achieved St. Paul's." I take it "who" is meant for Jules Hardouin Mansart, though it reads as if it were François. The last payment to workmen for the dome of the Invalides was made in January 1712, nearly four years after the death of J. H. Mansart (*Comptes des Bâtiments du Roi*). The stone to the top of the lantern of St. Paul's was laid in 1710. Except that St. Paul's was begun first, the buildings were going on simultaneously.

(4) Professor Pite refers to the church of St. Sulpice "by Levaux." Le Vau began the church, but did little more than the East chapel; it was carried on by Gittard, then by Oppenord, in the eighteenth century; the nave was not finished till 1736, and the West front, of which one usually thinks in connection with St. Sulpice, was designed by Servandoni, altered by Maclaurin, and continued by Chalgrin, who got as far as the North tower some 125 years after the date of Le Vau's original design.

(5) Professor Pite mentions Mansart's work as at "Maisons and Maisons Lafitte" as if they were distinct places. But the château of Maisons designed by François Mansart is the château at Maisons Lafitte, and it is odd that in connection with the completion of the Louvre he should have referred to this building and architect rather than to Claude Perrault, the actual designer of the Colonnade.

(6) Professor Pite mentions "the fine-domed church of Val de Grace, projected by Mansart, completed by Lemercier," but Lemercier had nothing to do with the design of Val de Grace. He superintended the elevation of Mansart's design up to the first entablature, and after Lemercier's death in 1654 the building was completed by Le Muet and Le Duc.

(7) He refers to Wren's acquaintance with "the current publications of the new State Academy of Architecture, recently founded by Colbert"; but the Academy was not founded till 1671, and issued no publications of its own, though later on it approved of works submitted to it, such as Perrault's Vitruvius, Daviler's "Cours d'Architecture" or Desgodetz' "Edifices Antiques de Rome," but neither the Academy nor any of these works existed when Wren visited Paris in 1665.

These few negligences, if I may so call them, do not detract from the soundness of the position taken up by Professor Pite in his very able survey, but architects seldom study closely the history of their own art, and *litera scripta manet*. Mistakes once perpetuated in print are difficult to dislodge, and lead to all sorts of misappreciations. Hence this letter: to which I would add one plea for the past. Professor Pite says: "From its insular and barbaric awkwardness the genius of the travelled artist, Inigo Jones, awakened

* See *Comptes des Bâtiments du Roi*, vol. i, 198, 1540–50, where Vignola is described as "Jacques Veignolles, peintre."

England." Nobody has a greater admiration for Inigo Jones than I have, but surely a place can be allowed in one's affections for Compton Wynnyates?

REGINALD BLOMFIELD [F.]

28th November, 1917.

To the Editor, JOURNAL R.I.B.A.—

SIR,—In the November number of the JOURNAL you print the inaugural lecture at the London Central School of Arts and Crafts, given by Professor Beresford Pite. To an intense admirer of the Cathedral, this lecture appeals as an exceedingly interesting and eloquent tribute to the genius of the great architect: and perhaps the Professor will not object to my making an addendum, engendered by the lecture.

Most of us in considering St. Paul's Cathedral have in our minds St. Peter's at Rome, and although the latter is so preponderating in size it certainly does not hold its own, in general effect, with the former. In approaching the west front of St. Peter's we all regret the want of altitude in the dome and lack of beauty in its curve; whereas in viewing the west front of St. Paul's the exquisite curve of the dome, and its correct altitude, are thoroughly pleasing. This result has been brought about by that ingenious example of constructive skill, with resultant beauty, the conical wall which passes between the cupola and the dome, carrying, in itself, the stone lantern, weighing some seven hundred tons.

To sum up: the dome of St. Peter's is wanting in altitude exteriorly, and is of too great an altitude interiorly; whilst interiorly the cupola of St. Paul's is within convenient range of the eye; and exteriorly the dome is right in altitude, and beautiful in outline.

Yours faithfully,

WM. WOODWARD [F.]

Architecture and History.

26th November, 1917.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—Mr. Henderson's letter points to the importance of co-ordinating both literary and monumental records. I do not, however, quite agree with him as to Gibbon's failure in this respect, for his description of the foundation of Constantinople and of the building of Sta. Sophia may be instanced as not only picturesque but specific; and Green's survey of social and political conditions is valuable to the student of the building arts from its breadth. I may point out that the School of Architecture at the University of Cambridge specially provides for candidates for honours or ordinary degrees a combination of studies in the History School with Architecture that is obviously of great importance to the profession.—

Yours truly, BERESFORD PITE [F.]

The University, Sheffield : 3rd Dec., 1917.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—May I, in a few words, support the view put forward by Mr. Henderson in his letter in the November issue of the JOURNAL? Many of us must have

felt that architecture is inadequately treated, when dealt with at all, in our historical works, and that the study of history is sadly incomplete when such noble examples of man's efforts as the Parthenon, Sta. Sophia at Constantinople, the cathedrals of the Middle Ages, St. Peter's at Rome, and our own cathedral of St. Paul are overlooked.

I would suggest, however, that rather than ask the Professor of History to deal with such matters, we should ask him to arrange for his students to attend a short course of lectures given by the Professor of Architecture. Most of our universities now possess schools of architecture, and it is almost as important that the history students should know something of our art as it is for the students of architecture to attend courses in other faculties.

Here in Sheffield we have gone a step further; not only do students reading for honours in ancient history take a short course in ancient architecture, but it is also possible, in normal times, for the student reading for an ordinary arts degree to take the history of architectural development as one of his subjects; and I hope the same facilities are given elsewhere.

Anything that helps to give our art its proper "place in the sun" is to the good, but to my mind most important of all in presenting architecture to the non-professional student is the emphasising of the fact that architecture is not merely a matter of other places and other times, but that it is essentially a living art which is at our service here and now.

W. S. PURCHON [A.]

Charing Cross Bridge.

The Athenaeum, Pall Mall : 29 Nov., 1917.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—While warmly concurring in President Hare's well-timed expression of regret that we, as a nation, should allow our decision in matters artistic to be made upon practical grounds alone, it is impossible not to join issue with his further ground of regret—viz.: "that a bridge of any kind should be necessary at this point of the river, as an unbroken sweep between Westminster and Waterloo Bridges would give one of the finest and most impressive views to be found in any capital." Now the overwhelming practical reasons for a bridge just here, and that the best of bridges, are so cogent, that there is possibility and some danger that the aesthetic side may be still overlooked. Our Thames here is no arm of the sea, dwarfing all human scale whether of façade or street—but the waterway of the world's capital, flung upon both his banks, and claiming her right of beautiful as well as of easy approach. We need the right treatment in our civic centres, not an emptiness at a vital point, but a climax. Ours is a harnessed river of communication. The mind naturally asks for bridges, and asks most where those are needed most. The best pride of us river dwellers should be the bridges spanning from the homes to the lives. As well cut down the trees of a forest which conceal the

view (according to the dweller in the Shetland Isles) as wish away the connecting threads which bind together the great chaplet of our city. There seems no reasonable doubt that a well-schemed low-level bridge at the axis of the sweep between Westminster and Waterloo would be a positive architectural gain, no hindrance but a main feature of beauty in the prospect whether seen from Westminster or Waterloo. That the aesthetic gain is reinforced in this case by the practical need seems to render this contention unanswerable, and brings our dream of a bridge worthy of London into the region of serious discussion even by the "practical man."

Would Mr. Hare secure the abolition of Behemoth and the much needed and desired railway station on the southern side by sending his unfortunate fellow-citizens driving all round by Westminster and Waterloo? We rise as one man to vote for the direct bridge, and know that we are sure to have him with us when we vote aspiringly at the same time that the best is always the most beautiful.

W. D. CARÖE [F.]

The Guildhall, E.C. : 3rd December, 1917.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—This difficult problem is not settled; it is postponed; and I trust our Institute will take advantage of that fact to bring forward a scheme (not a design) which can be submitted to the public with the authority of the R.I.B.A. It is clearly our duty to do so; we obtained our first Charter because Architecture is "an Art . . . tending greatly to promote . . . the Public improvement and embellishment of Towns and Cities." Our Petition to Parliament with reference to St. Paul's Bridge is published in the JOURNAL of 18th February 1911, and contains these words: "Your Petitioners' Institute, as the only chartered body of architects in the United Kingdom, accepts and claims as part of its responsibility and public duty the function of tendering advice to the Government." In that case we did not do so, although we had an invitation to attend a Select Committee of the House of Commons, and we were, very rightly, severely censured in Parliament because we had failed to do our duty (see JOURNAL, 27th July 1912, page 640). Such a scandal must not occur again.

Although we have such great privileges, yet I believe I am right in stating we have never prepared any scheme, but have confined ourselves to destructive criticism, an easy art which seems to have become second nature to some architects; but if we want to gain the respect and confidence of the public we must do something more, we must have a constructive policy.

It may be pleaded that as a rule we have no knowledge of schemes for public improvements until it is too late for us to formulate our ideas, hence our barking policy; but that excuse certainly cannot be used in this case; an improvement scheme at Charing Cross has been discussed for years, although

some people think because it is now spoken of as a "War Memorial," it is new!

This important matter should be taken in hand at once by our Art and Practice Committees, and a Scheme, after approval by our Council, should be submitted to the general body of members.—Yours obediently,

SYDNEY PERKS [F.]

"After the War."

To the Editor, JOURNAL R.I.B.A.,—

SIR,—There is good reason to expect that, for some considerable time after the war, building operations, giving opportunity to architects, will chiefly refer to Housing and Educational Schemes, which will not be in the hands of private enterprise, but undertaken by the Government, or municipal or urban or rural district authorities; and I write to ask what action, if any, our Council is taking to secure that, under these circumstances, the degradation of architecture by official callousness and municipal ignorance and jobbery, will not become like a drab garment shrouding our best hopes, and establishing popular standards of uniformed taste which a hundred years of resolutions of our General Meetings will hardly lift away.

In the first of the "Informal Conferences" at No. 9 Conduit Street last winter, Mr. Lethaby drew trenchant comparison between the Faculty of Medicine and the Faculty of Architecture. He showed that the former has won public respect and power to manage the persons and affairs for whose right status it exists; and he showed that the Faculty of Architecture has achieved neither of these results; and he asked "Why?"

The members of our Council are perhaps too apt to suppose that they have reached the goal, rather than the starting point, of public service. There is no doubt that our Council hesitates, unduly, to take action in unpopular directions—that is, in directions which involve obstructing persons, influences, interests which, in their private capacities, it is gauche and tactless in its members to obstruct. I put the matter no higher than that; but no one will deny that membership of Council is a tangible professional asset. A man's private opportunities are increased by his holding office. It is realised to be so by all of us. To be elected is felt to be a personal success: a distinguishing mark of capacity and eminence; and that feeling, I assert, is not in any way associated with the dignity of opportunity for service in the causes we have at heart. We have, I think, only to examine the records of the treatment the Council has in the past meted out to the carefully-drawn reports and balanced recommendations of certain sub-committees, to understand what the policy of the Council has effectively been.

The special problem to which this letter is intended to call attention is to secure that architectural work, undertaken by the Government or municipalities, shall be done by qualified architects. So far as

Government posts are concerned—that citadel has been breached, we may congratulate ourselves; but as regards the provincial idea that to be a house-agent and the son-in-law of a chairman, is an architectural qualification ranking somewhere between R.A. and F.R.I.B.A., little or nothing has been done to bring health into our midst. My own humble opinion is that our only hope is to bring pressure to bear on the Local Government Board, and now is the time to press. A trenchant petition signed by members of Council of Architectural Societies throughout the country would command attention if only by sheer bulk, and would continue to be a stalking horse for continued sniping thereafter, and good reason for the first of our Presidents who is a woman to chain herself to the railings in Whitehall. It is, I am sure, useless to approach provincial authorities. Without any disparagement of individuals it may be fairly said that jobbery is not merely a habit but a religion on district councils and kindred bodies. All members certainly have not this devotional enthusiasm, but the work of such councils is coloured by those members who have.

These councils have, however, an unendearing respect for the Local Government Board. Like a dog who knows where the whip is kept, they are uncomfortably aware of the surcharge as of a device the mechanism of which they imperfectly understand. The ordinary district councillor has thus a respect for the Local Government Board's expressions of opinion, for he can be convinced either by an act of physical assault, or by touches at the focus point of his sentiments and seat of reflectiveness, which is his pocket; and this last is where the Local Government Board catches him.

And so, Sir, I write to ask what steps our Council proposes to take to establish Official and Municipal Architecture after the war.—Yours obediently,

H. B. CRESWELL [F.]

Architectural Association Bureau and Drawing Office.
Architectural Association, 35 Bedford Square, W.C.1.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—Some time ago you were good enough to give publicity in your columns to the Association's scheme for assisting members of the architectural profession on their discharge from the Army. One of the proposals outlined was the establishment of a Drawing Office, in which men upon their discharge would find employment, until such time as they could obtain permanent work, and in which an opportunity would be afforded those not physically fit to take up employment elsewhere of working under circumstances specially arranged to meet their requirements.

I am now writing to inform you that the Drawing Office is established, and, whilst fully aware that work in the architectural profession is scarce at the present time, I should be very grateful to any architect who could send work to the Office to be done. Any type

of drawing can be undertaken, and assistants can be sent out to architects' offices for temporary work. I am sure the Office will commend itself to the Profession, and its existence has only to be known to ensure its receiving sufficient support to make it a success.

I would also draw attention to the fact that the Architectural Association Bureau is most anxious to help any member of the Profession, being discharged from the Army, in matters connected with his return to civil life, and that special arrangements are being made in the Schools to retrain and assist those whose military service has rendered this necessary. Through the Bureau, many discharged soldiers have been helped in various ways, and it is hoped that others requiring assistance will not hesitate to make their needs known.—Yours faithfully,

F. R. YERBURY, *Secretary.*

The Education of the Architect.

*School of Architecture, University of Liverpool :
7 November, 1917.*

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—In the October issue of the JOURNAL, under the title "The Education of the Architect," you publish comments by Mr. Walter Millard on the policy of the Board of Architectural Education in regard to the Schools of Architecture. Mr. Millard's notes conclude with an invitation to those engaged in the teaching of architecture to put forward their views on the subject.

I venture therefore to draw the attention of the Board of Architectural Education to certain aspects of its constitution and of the constitution and working of its Testimonies of Study Committee. In so doing, I do not intend to raise the whole question of the policy of centralisation adopted by the Royal Institute, within the limits of its concern with educational matters. My immediate purpose rather is to focus attention upon defective points in that policy and to suggest remedies for the consideration of the Board :

1. The basis upon which the Board of Architectural Education is constituted is not designed to ensure under all conditions an adequate or effective representation of those whose profession is the teaching of architecture. Its composition is settled by the votes of the Council ; and the Council itself is elected by professional suffrage on general and not on purely educational issues. All the members of the Board ultimately so chosen may be presumed to be interested in architectural education. But the absolute and relative number, by vocation wholly engaged therein, is determined through a system of election conceived without direct reference to actual requirements. The scholastic members of the Board, whether elected or co-opted, occupy their position in virtue of an indefinite instead of a definite principle of representation.

2. The Testimonies of Study Committee exercises powers of the first importance in the examinational

administrative of the Royal Institute. By its decisions it controls the admission of candidates to the Final Examination. Yet as a Sub-Committee of the Board it proceeds from a body whose constitution is open to the criticism already made. This Committee—I have been unable to discover a record of its personnel—is called upon to decide an expert question affecting students in all Schools of Architecture throughout the country. It does so unassisted by the guidance of representatives of the school staffs generally. Its conclusions are formed from external evidence, the value of which it can, in many cases, have no accurate means of knowing.

3. In whatever manner the decisions of the Committee may be reached, the method by which they are announced is of no assistance to candidates or to those responsible for their instruction. No explanations are given when a design is rejected; the student is left without the help of a reasoned critique of his work; he does not know whether his design has been thrown out on the ground of some infringement of the conditions or because of defects of composition or character, detail or style, construction or technique. Nor is his instructor in any better position. In such cases both are equally ignorant of the motives and requirements of an unrepresentative authority.

(I may illustrate this latter point by reference to the experience of the Liverpool School, of which I am at present in charge. For the past three or four years, and recently to an increasing extent, designs which seemed weak, not only to the Staff but to the students themselves, have, when submitted as Testimonies of Study, been passed by the Committee; whilst work in our opinion of higher quality—and sometimes adhering more strictly to the prescribed conditions—has been consistently rejected. These results inevitably produce a discouraging and cynical effect upon the students and are inexplicable to the Staff.)

4. The conditions published for the Testimonies of Study frequently suffer from imperfect definition. When it is desired to delimit a problem in specific terms, the clear statement of the terms should, I take it, be achieved. The second alternative in Subject XXXIV. provides an example of what too often obtains: "*A Linendraper's Shop and Showrooms over four Storeys above pavement . . .*" It will be observed that the phrase "*over four storeys*" can be read in several senses. It may mean that the accommodation is to exceed four storeys in height; or that it is to extend throughout four storeys; or that it is to be distributed on the fourth storey level. A survey of previous examples will show that this instance is not unique.

I would suggest that the above defects may be remedied by the adoption of the following proposals:

(a) The Board of Architectural Education to include a representative of the Staff of every University and other recognised School of Architecture.

(b) These representatives

- (i) to constitute at least half the Board;
- (ii) to have full voting powers and not simply be attached in an impotent, advisory capacity.
- (c) The School Representatives on the Board, in view of their qualifications:
 - (i) to be ex officio members of the Testimonies of Study Committee;
 - (ii) to form three-quarters of the total membership of the Committee—in conformity with the tendency obtaining in all Universities to establish a ratio of three to one in the proportion of Internal to External Examiners;
 - (iii) to have full voting powers;
 - (iv) to be responsible, with the non-scholastic members, for the selection of subjects and for their statement in terms;
 - (v) to be permitted to report to their respective schools the reasons for the decisions of the Committee in regard to the designs submitted.
- (d) The personnel of the Testimonies of Study Committee to be published in the same manner as that of the Board of Architectural Education.
- (e) A reasoned critique to be furnished to the author of every rejected design who is not working at a school.

In putting forward the above suggestions I would plead that they are neither impracticable nor extravagant. The principles underlying them are accepted as axiomatic by educationalists and are given full effect in the modern Universities. Without the proper representation of instructors having a direct knowledge of the candidates' work and abilities, an informed examination is impossible. By granting to the teaching profession a legitimate share of control in its own sphere, this defect is remedied. Educational efficiency is increased, whilst under the conditions proposed there are safeguards against the establishment of a purely theoretic or doctrinaire régime.

Should it be objected that the suggested reforms would place at a disadvantage candidates unable to attend a School of Architecture, it may be answered that the provision of scholarships and grants affords the right method of meeting such cases. To perpetuate an obsolete system in the interests of a type of student that should be directed to the Schools is illogical. Moreover, the proposal to furnish self-educated candidates with a criticism of their unsuccessful work would at least be some mitigation of their present position. As things are, in the event of failure, they remain entirely without guidance.

I trust that it is not necessary for me to state that these remarks have not been inspired by any personal motive. They have been prompted solely by the conviction that the cause of Architectural Education will be effectively advanced only when its representatives receive consistent recognition, when settled and equitable conditions of collaboration are assured to them, and when they are granted powers

commensurate with their functions and with their responsibilities.—Yours, etc.,

LIONEL B. BUDDEN [A.]

P.S.—It is perhaps advisable to add that my constructive proposals are not intended to secure the permanence of the present system and that the form of certain of them has been influenced by motives of temporary expediency.

The criticisms directed against the practice of centralised external examination, in the case of Testimonies of Study, can, of course, be applied to the practice of the Institute in regard to every other subject in which it assumes the onus of conducting tests and granting qualifications.

COUNTRY COTTAGES.

[From *The Times*.]

There is one central art of real vital importance to us, and that is the art of building, for it creates for us the world in which we live. It matters relatively little what pictures are in the National Gallery so long as our real national gallery of field and hedgerow is adequately adorned. Yet by some curious perversity of the modern mind the immense importance of building is not recognised. It is so palpably obvious that it seems to escape our attention. And so it is generally left to the jerry-builder. Its glory is a thing of the past, and it has now become the Cinderella of the arts. The outstanding fact about the building art is its reality. Pictures are but dreams about reality, but a building is the dream come true—translated into the world of solid fact and part of the very substance of our daily lives.

The building art, properly understood, concerns itself mainly with the elements of structure, with walls, and roofs, and beams. It expresses itself normally in simple terms. It is capable of achieving beauty with common materials arranged in simple ways. It tells its story without ~~any~~ ^{any} oration. It may break into more elaborate forms when the occasion demands it, and then the flower is beautiful because the plant is healthy and deeply rooted in the soil. It is absurd of us now to make cast-iron copies of these flowers of old building and label them architecture. We must learn to grow the plant first. Unless we can build a cottage we can't build a palace. For if building is the most real kind of art, cottage building is the most real kind of building. Buildings in the modern world are usually classified according to cost. Expensive and elaborate ones may be considered ~~more~~ ^{more} artistic. But the cottage is a cheaper and, therefore, an ~~inferior~~ ^{inferior} type. And yet the cottage, when well conceived and constructed, may often put to shame the larger buildings. When built in accordance with old traditions it seems to link itself closely with the homes of other animals. It is the lair of the *genus homo*. It has the peculiar appeal which lies in all ancient and simple things, and that sense of stark reality which belongs to things directly devised for use. And so it shares with all the ancient implements of husbandry a peculiar dignity of its own derived from long descent.

When we think of art then let us forget South Kensington and think of building as our main artistic objective. We shall then begin to get the right perspective in our outlook and take the first step towards building in the right way again. Then, if our architects will condescend to study

the old cottages in our ancient villages, they will find more to be learnt from them for our present needs than from all the temples of Greece and Rome. Not only will they find sensible and practical methods of construction and planning, but a technique utterly unlike our modern mechanical ways.

For in the art of building technique is of vital importance, and the craftsman must not waste his time and spoil his work by trying to make it look as if it were done by a machine. Building can never be a one-man art, and its appeal is the cumulative result of every little act of the workmen engaged on it. To build good cottages no great education is needed, especially of the book-learning kind, no genius, or intellect, or great knowledge. "Knowledge puffeth up, but charity edifieth." Which in terms of building may be taken to imply that the one thing needful is that kind of absorbed and affectionate interest in work which the painter gives to his picture, the sportsman to his golf or his gun, but which no modern builder gives to the work of his hands. It is well that cottages should be moderately cheap because wholesome restrictions of cost prevent us trying to disguise our poverty of ideals by mere expense. But art is not a sort of extra luxury, and an artistic cottage is not an ornamented cottage. Nor is there any need to try to discover some new method or material in building. The old and simple ways are good enough at least to begin with. The one thing needful is for us to resolve to try to give up disfiguring the world with building and to learn from the old builders how to beautify it instead as they did. Let those who do not realise the qualities of old cottages take such a book as Mrs. Allingham's *Happy England*. Therein will be found faithful pictures of old cottages in one small district only of English country. There, at least, not many years ago, each cottage had its own particular charm and each helped to adorn and, indeed, almost to explain its natural surroundings. That is the art we have lost. That is the England we are destroying.

To achieve a better way of building, the first step is to think of cottage building as the proper field for the expression of artistic ideals and not merely the concern of the speculative builder or that kind of utilitarian who attempts to disguise his materialism under the cloak of a practical efficiency which he does not possess.

Mr. Halsey Ricardo [F.], in a letter to *The Times*, remarks that anyone reading the article reprinted above would gather the impression that architects consider it beneath their dignity to design cottages.

This (says Mr. Ricardo) is one of the several attitudes ignorantly attributed to the profession. The architect does not consider it below his dignity to design a cottage, but considers it a great misprision of his qualities and his services, when they are unsought for, when a scheme of cottage building is on foot. Nor will an architect admit that "to build good cottages no great education is needed, or great knowledge." That such a view has currency is a public misfortune, and it is the parent of the widely spread, ignorantly built cottage that so frequently disfigures the locality in which it stands. The "old cottage" embodies some centuries of traditional building lore, not now easily to be found in the modern builder's yard.

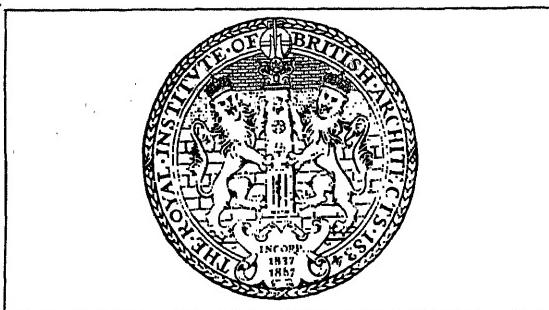
The Times also prints a letter from Mr. Robert W. S. Weir, who, referring to the suggestion in the same article that inspiration for suitable models might be obtained from a study of the beautiful old cottages which still survive, says:—

The tradition that created them, however, is dead, and in any case these types, with their very low rooms and small windows, are entirely unsatisfactory when looked

upon from the modern standpoint of health and comfort. I have recently had to examine over a hundred such cottages in a rural area, and I have found that internally they usually lack the requirements that are essential to modern needs. They are, in most cases, damp, low, dark, and unwholesome, and their health records are almost invariably bad. When epidemics of scarlet fever or diphtheria break out the worst cases are generally to be found in these picturesque old cottages.

The art of reasonable building is not quite so dead as the writer of the article seems to indicate. Much thought has been given of recent years to this cottage problem alone, and it is still recognised by many that building is the "one central art of real vital importance to us." The matter is essentially a practical one and cottages can and will be erected in an honest and straightforward manner,

and will form pleasant features in the landscape just as the old ones do. In the new cottage-building era about to commence we ought to concern ourselves principally with the necessity for simply designed and arranged, dry, healthy homes. These must have rooms of reasonable size and height, with good windows to let in plenty of fresh air and sunlight, and, amongst other things, well-ventilated food cupboards and an ample supply of good water. Conflicting by-laws might well be scrapped and a set of simple regulations framed, applicable to the whole country and based on the essentials for health. Cottages erected under such conditions and without undue restrictions as to materials and construction, but controlled by those who have first-hand knowledge of rural requirements, should not make for the disfigurement but rather add to the amenities of the countryside.



9 CONDUIT STREET, LONDON, W., 15th December, 1917.

CHRONICLE.

The R.I.B.A. Record of Honour: Fiftieth List.

Fallen in the War.

ALEXANDER, Captain GEORGE LUARD, Post Office Rifles, attached Staff [Associate, 1910; partner of Mr. Robt. Atkinson [F.]]. Killed in action.

GASCOYNE, Captain CHARLES, Sherwood Foresters [Owen Jones Student, 1906]. Died of wounds as a prisoner of war in Germany.

MATTHEWS, Captain JOHN BEEDEL, M.C., North Staffs Regt., attached to Leicester Regt. [Student]. Killed in action.

FREAKER, Serg. ALLEN LIONEL, Artists' Rifles [Student, 1911]. Killed in action in France on 30th October.

Mr. Sydney Tatchell [F.] writes: "At the outbreak of war Freaker was in camp and went to France in the early days. He did valuable work as Instructor in the O.T.C. established at St. Omer. He was offered a commission, but with characteristic modesty elected to remain in the ranks, where he felt he was doing more useful work. Freaker entered my office in 1909 as a pupil and remained as assistant. He possessed a delightful personality, loved his work and showed promise of a brilliant career. His death is a very real loss to those who had the good fortune to know him."

Military Honours.

GIBBONS, Lieut. JOHN HAROLD, R.F.A., Associate, Pugin Student 1903. Awarded the Military Cross "for gallantry in the field." Lieut. Gibbons is the son and partner of Mr. John Gibbons [F.], of Manchester.

MAULE, Captain HENRY P. G., H.A.C., Fellow, was specially mentioned in Sir D. Haig's dispatch of 7th November for distinguished and gallant services and devotion to duty.

Members' Sons Fallen.

WELLS, 2nd Lieut. EWART LINLEY, B.A., Wellington (N.Z.) Infantry. Killed in action in Gallipoli, August, 1915. Aged thirty-one.

WELLS, Lieut. RONALD GRAHAM, B.A., Royal Sussex Regiment. Killed in action in France, 4th March, 1916. Aged twenty-five.

The foregoing, both of them in the scholastic profession before the War, were the sons of Mr. Arthur Wells [F.], of Hastings.

Promotions.

The following promotions have been gazetted:—

Harding: C. A. [A.], Lieut., R.N.V.R.

Chaikin: B. [Licentiate], Lieut., R.A.M.C.

Bull: W. W. [Licentiate], 2nd Lieut., R.F.C.

Barrow: J. W. [A.], East Surrey Regt., Lieut., R.E.

Housing of the Working Classes in England and Wales: Cottage Competitions.

In the last issue of the JOURNAL brief particulars were given of the scheme for procuring designs for cottages suitable for the industrial classes in England and Wales, a series of competitions having been instituted throughout the country under the charge of the R.I.B.A. and its Allied Societies. It remains to complete the description by showing how the country has been divided up for the purpose of the competition. As already stated, there are six areas, and the competition in each is under the charge of the Allied Societies located therein [see page 11].

I. *The Northern Area* comprises the counties of Northumberland, Cumberland, Durham, Yorkshire, Derbyshire, and Lincolnshire. Particulars of the competition for this area are to be obtained from Mr. H. L. Hicks, Hon. Secretary, Northern Architectural Association, 6, Higham Place, Newcastle-on-Tyne.

II. *The Manchester and Liverpool Area* comprises Westmorland, Lancashire, Cheshire, Flintshire, Denbighshire, Carnarvonshire, Anglesea, Merionethshire and Montgomeryshire. Particulars are to be had from Mr. Isaac Taylor, Hon. Secretary, Manchester Society of Architects, 16, St. Mary's Parsonage, Manchester.

III. *The Midland Area*, comprising Warwickshire, Staffordshire, Shropshire, Herefordshire, Worcestershire, Nottinghamshire, Derbyshire, Lincolnshire, Leicestershire, Northamptonshire, and Rutlandshire. Particulars to be had from Mr. Alfred Hale, Hon. Secretary, Birmingham Architectural Association, 18, Bennett's Hill, Birmingham.

IV. *The South Wales Area*, comprising Glamorganshire, Brecknockshire, Radnorshire, Cardiganshire, Pembrokeshire, Carmarthenshire, and Monmouthshire. Particulars to be had from Mr. C. H. Kemphorne, Hon. Secretary, South Wales Institute of Architects, Albert Chambers, High Street, Cardiff.

V. *The South-West Area*, comprising Devonshire, Cornwall, Hampshire and Isle of Wight, Gloucestershire, Wiltshire, Somersetshire and Dorsetshire. Particulars to be had from Mr. Allan J. Pinn, Hon. Secretary, Devon and Exeter Architectural Society, 5, Bedford Circus, Exeter.

VI. *The Home Counties Area*, comprising Norfolk, Suffolk, Cambridge, Huntingdon, Northampton, Hertfordshire, Bedfordshire, Oxfordshire, Buckinghamshire, Berkshire, Surrey, Sussex, and Kent. Particulars to be had from the Secretary R.I.B.A., 9, Conduit Street, London.

The Conditions for the Home Counties Area, set out in the last issue [p. 11], apply to all the areas, the only variation being that the designs must be suitable for adoption in the counties situated in each area.

Supplementary Particulars (appended below) embodying Replies to Questions have now been issued, and copies may be obtained from the R.I.B.A., or from the Hon. Secretaries of the Allied Societies mentioned above.

Cottage Competitions: Supplementary Particulars in Response to Questions by Competitors.

[See Conditions, JOURNAL for November, p. 11.]

1. The floor areas given apply to all classes, and are to be nett area clear of all projections. The floor of living-room should have an area of not less than 180 feet.

2. The heights of storeys may be from 7 feet 6 inches to 8 feet in the clear. Bedrooms may be partly in the roofs, but not less than two-thirds of the ceilings must be of the maximum height; and the vertical walls must not be less than 5 feet high.

3. The bath should be fixed and not of the tip-up type. It is not essential that a separate bathroom should be provided. The w.c. should not be placed in the bathroom or entered from the scullery.

4. No drainage need be shown, and it may be assumed that access to the houses is from both front and back, and no gardens or plans of site need be shown.

5. No alternative plans will be allowed.

6. All drawings are to be drawn with the long dimension of the paper horizontal, and each class is to be clearly marked A, B, C, or D, as the case may be.

7. Each class is to be shown on a separate sheet, and the classes may not be intermixed.

8. The drawings are not to be mounted on strainers, and are to be in black ink, with a black wash over the window openings. No perspectives are to be sent.

9. The time for sending in designs is extended to 31st January, 1918.

10. The fact of a design being premiated will not prevent the author from making use of it in his practice if he so desires.

11. The two elevations asked for may be such as the competitor thinks will best illustrate his design.

12. The assessors in each competition will have the option of recommending designs for merit for further premiums (or honourable mentions), in addition to those stated in the conditions.

13. Each of the Classes A, B, and C is to be designed as a block of five or six houses, of which three are to be drawn in detail, the others in outline only. Of the three which are to be fully drawn, one is to be an end or semi-detached

house, another a terrace house between party-walls and lighted front and back only, with frontage of 18 feet from centre to centre of party-walls, and the third to be a house one room deep only, with long frontage at the discretion of competitor. The grouping or composition of the block may be arranged in any way the competitor desires. A section of one house in each block, if sufficiently explanatory, is all that is required.

14. It may be assumed that water supply is available.

15. A Committee of Assessors will be appointed by the Architectural Societies in each area.

The following points are given as desirable, but are not to be regarded as essential:—

Staircase should have direct ventilation.

Coals should be accessible under cover, and accommodation should be provided for at least one ton.

Scullery should be large enough to serve as a relief to living-room, but not large enough to take centre table.

Agenda of Meeting for 7th January 1918.

The attendance of members at the meeting of the 3rd December falling short of the quorum required by the By-laws, the business on the agenda could not be proceeded with, and at the end of the half hour allowed by the By-law the President took the chair only to dismiss the meeting. The business on the paper for that occasion will therefore be brought on at the meeting which has been called for the 7th January 1918—see Notices, p. 48. It will be seen that Mr. Wills has put on the paper a definite motion on the subject it had been proposed to discuss on the 3rd inst.

THE EXAMINATIONS.

The Final: Alternative Problems in Design.

Instructions to Candidates.

1. The drawings, which should preferably be on uniform sheets of paper of not less than Imperial size, must be sent to the Secretary of the Board of Architectural Education, Royal Institute of British Architects, 9 Conduit Street, W., on or before the dates specified below.

2. Each set of drawings must be signed by the author, AND HIS FULL NAME AND ADDRESS, and the name of the school, if any, in which the drawings have been prepared, must be attached thereto.

3. All designs, whether done in a school or not, must be accompanied by a declaration from the Student that the design is his own work and that the drawings have been wholly executed by him. In the preparation of the design the Student may profit by advice.

4. Drawings for subjects (a) are to have the shadows projected at an angle of 45° in line, monochrome, or colour. Drawings in subjects (b) are to be finished as working drawings. *Lettering on all drawings must be of a clear, scholarly, and unaffected character.*

Subject XXXVII.

(a) *A WAR MEMORIAL.* The site is an old garden at a point in a town where two roads converge. It is 150 feet on each side, 100 ft. at the rear and 20 feet in front. There are two cedar trees at 20 feet each from the rear and side boundaries.

The scheme is to comprise one main monument and subsidiary memorials to individuals or particular units, standing in the open or in loggias or recesses. All decora-

tion should be appropriate to a memorial commemorating sailors, soldiers, doctors and nurses, airmen and others who have taken an active part in the war. The names of various battles should appear.

Plan 8 feet to an inch. Longitudinal section to 8 feet to an inch, a drawing of the chief monument and of one or two smaller ones to $\frac{1}{2}$ -inch scale. Slight indications only of sculptural work are required. Except as regards the site, the above particulars may be considered merely as suggestions, the intention being to put a good scheme before a committee who have only considered the matter broadly.

(b) A REFRESHMENT ROOM IN A PUBLIC PARK. A site 100 feet square is available. It is approached from the East by one of the main avenues, and there is a good view towards the South. A Central Hall with bar and kitchen offices is to be provided, also retiring rooms for men, women, and staff. Ample verandahs are also required.

Drawings.—Ground plan, section and elevation $\frac{1}{2}$ -inch scale, and a detail to $\frac{1}{2}$ -inch scale.

Subject XXXVIII.

(a) A CRAFTS MUSEUM to cover a site 6,000 feet in area, having a main street in front and a minor street on each side; the usual cloak rooms, curator's room, etc., to be provided; the galleries to be suitable for exhibiting parts of rooms, furniture and utensils, and the processes by which these are made. The building to have two floors and the upper floor top-lit.

Drawings.—Plans and one or two elevations to $\frac{1}{2}$ -inch scale, section of a portion showing a gallery roof to $\frac{1}{2}$ -inch scale.

(b) A DETACHED VILLA facing a public thoroughfare in a provincial town. Accommodation required, three reception rooms, five bedrooms, and usual offices. Non-basement house. Site, 70 feet frontage and 200 feet depth.

Drawings.—Block plan to $\frac{1}{2}$ -ft. scale, two plans, front elevation and one section to $\frac{1}{2}$ -inch scale, with entrance bay to 1-inch scale.

Subject XXXIX.

(a) BOARD ROOM TO A BANK on first floor. Size of room, 25 feet square, with Directors' retiring room and lavatories in addition, also staircase. The building has a frontage of 28 feet.

Drawings.—One plan of whole of first floor; plan of ceiling of board room and section all to $\frac{1}{2}$ -inch scale. Scheme of colour decoration to be shown.

(b) A STREET VIADUCT. Municipal improvements necessitate the carrying of a new street, over an existing old street at a lower level.

The new street is 120 feet wide and the old one 60 feet wide. The new street is 30 feet above the old one, which it crosses at right angles.

The Viaduct is to have a monumental character in keeping with the important street which it carries.

The lower street, which has a carriage-way and foot-paths, may be spanned by one or three arches, and adequate abutments will be necessary to sustain the thrusts.

The buildings each side are also to be rebuilt 80 feet in height above the new street level, and are to be shown sufficiently to explain their connection with the design.

Means of communication between the different levels are to be provided at both sides of the new roadway, also a subway to form a safe crossing.

The materials are optional.

Drawings.— $\frac{1}{2}$ -inch scale elevation and sketch plans $\frac{1}{16}$ -inch scale.

Dates for Submission of Designs in 1918.

	Subject xxxvii.	Subject xxxviii.	Subject xxxix.
United Kingdom	28th Feb.	30th April	30th June
Johannesburg	30th April	30th June	31st Aug.
Melbourne	31st May	31st July	30th Sept.
Sydney	31st May	31st July	30th Sept.
Toronto	31st March	31st May	31st July

NOTICES.

Business Meeting, 7th January 1918, at 3.30.

A GENERAL MEETING (BUSINESS) will be held Monday, 7th January 1918, at 3.30 p.m., to transact the business held over from the abortive meeting of the 3rd December—viz. :

To read the Minutes of the General Meeting (Ordinary) held Monday, 5th November 1917; formally to admit members attending for the first time since their election; to proceed with the election of candidates for membership, 10 Fellows and 5 Associates (the names of candidates were published in the JOURNAL for October and November 1917).

Notice of Motion for above Meeting.

Mr. HERBERT W. WILLS [F.] has given notice that he will move the following Resolution :—

"That in view of the extremely important interests involved, this Institute should take action in conjunction with other bodies to represent to the Government their strong objection to the continuance of any system of control over building after the war."

R.I.B.A. Informal Conferences—at 3 p.m.

3. 9th Jan. 1918.—Co-operation amongst Architects, and Specialisation. *Opener*, Mr. H. V. Lanchester; *Chairman*, Professor Beresford Pite [F.]

4. 13th Feb.—National Policy of Town Improvement (Conference with Public Men and Writers). *Opener*, Mr. A. Clutton Brock; *Chairman*, Sir Aston Webb, K.C.V.O., C.B., R.A. [F.]

5. 13th March.—National Building and National Life. *Opener*, Professor Adshead [F.]; *Chairman*, Mr. W. R. Davidge [A.]

6. 10th April.—Relations of Architecture and Engineering (Conference with Engineers). *Opener*, Professor W. R. Lethaby.

7. 8th May.—Quality of Work and the Present System of Competitive Tendering (Conference with Builders and Workmen). *Chairman*, Mr. H. V. Lanchester [F.]

8. 12th June.—Proposed Parliament of Building Trades.

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UNITY OF THE PROFESSION.

The Tenth Informal Conference held at the Royal Institute of British Architects, 5th December 1917.

Professor W. R. LETHABY, in the Chair.

PROFESSOR F. M. SIMPSON [F.]: In opening the discussion this afternoon, and advancing a plea for unity amongst architects, I am well aware that I am venturing on dangerous ground, and possibly laying myself open to the rebuke that "fools rush in where angels fear to tread." I understand it was resolved some time back that controversial matters should be held in abeyance until the end of the war, the reason given being that it would be unfair to the men serving at the front to come to a decision in their absence. With the principle of that resolution I heartily sympathise. I should be the last person to suggest any action of which they might disapprove. But for them, and others like them, we should not be meeting here to-day. But I confess I doubt if these men—who are now engaged on an infinitely bigger matter than even the future of architecture in this country—when they return from the trenches, the craters, dug-outs, and the mud, will want to plunge into the turmoil of what will appear to them but petty politics in comparison with the great decisions for which they have been fighting. I venture to think that if nothing is done now to advance these matters a step nearer solution, the remark of the majority on their return will be "What! still at the same old job! haven't you settled that yet?"

I see a good many young men home on leave. They have but one thought for the future. When they have finished their present business of beating the Huns, their sole desire is to make up for the time they have spent—and well spent—fighting for their country, and devote all their energies to advancing themselves in their profession. They will come back expecting that we, who, through age or other causes, have been unable to do what they have done, have still to a small extent done our "bit" in straightening out their future for them.

The Society of Architects, I believe, some time back proposed a conference. This is the age of conferences. If the war has done nothing else, it has proved their

utility and value. Speaking as an individual, and not as a Member of Council, I can see no reason why a conference with the Society should not be held. Their aims and ours may be incompatible and fusion impossible. I don't know. A conference would show whether such is the case or not, and entering into a conference does not, of course, commit one to a settlement. Settle nothing at all now, if you like, either as regards that or any other controversial matter; but now is the time to *talk*. When peace is declared will be the time to *act*, and we should be prepared to act quickly.

There can be no diversity of opinion amongst architects as to the urgent need for unity in our profession. We have suffered from the lack of it for a hundred years or more. For unity means strength, and strength compels respect. If we had been united and strong at the beginning of the war, the architectural profession would not have been so completely ignored as, unfortunately for the country and ourselves, it has been. Our President referred to this in his opening address last month; and the point was also exceedingly well put, although tardily, by Mr. Ernest Newton, Sir Aston Webb, and other members of the deputation which waited on Mr. Neville Chamberlain last February. I will only add one remark. Never before in the history of the world, so far as I am aware, has a profession been virtually forbidden to practise by Act of Parliament. No doubt the prohibition was necessary. It was accepted as such; and to the eternal credit of architects throughout the country there has been no grumbling. Our only grievance, and I think a substantial one, is that when the Government stopped all private building enterprise, they gave public building work and public posts and appointments, which by right of training and fitness belong to architects, to members of other professions, and to men of no profession at all.

It is no good crying over spilt milk; but spilt milk

has a moral. The need for unity in the profession does not end with the conclusion of the war. It starts again, and with redoubled force, at the Declaration of Peace. Then, as never before, it is imperative that we should be united and strong. We must be in a position to make our wants known, our influence felt, and our aims and aspirations respected. We must be able to approach public bodies, and speak to them with undivided voice, on all matters affecting our calling. We must be able to hold our own with members of other professions, and to stamp out the jacks-of-all-trades, and the tradesmen, who now too often try to usurp our functions, and angle for work for which, both by their lack of training and artistic ineptitude, they are entirely unfitted. Above all, we must uphold the dignity of the Art of Civil Architecture, for the advancement of which our Institute was founded and received its Charter.

The last should be our principal aim. We are not out merely to profit the Institute, or fill our own pockets ; although if both result, so much the better. Our business in the first place is to consider what is best for *Architecture* : what steps can be taken and what modifications made in our policy and constitution which, whilst inflicting no injury on anyone now—or at all events a minimum amount only—will produce the most beneficial effect in the future. We must look ahead—twenty, thirty, even fifty years hence.

The proposals for a new Charter were approved at the meeting held on the 29th June 1914. The principle of registration was then accepted. I have no intention of going behind that decision. An enormous amount of work was done by members of the Council and others in the framing of the proposed Charter, and the thanks of all architects, whether belonging to the Institute or not, are due to these men for the trouble they took and time they devoted to the matter. The conclusion they arrived at was doubtless the best under the circumstances. But much has happened since June 1914. Circumstances have changed everywhere throughout the world, and previous policies have been abandoned. Our conclusions should not be the only ones to remain immutable. It is permissible now to take a broader, more generous view than was possible then. Vested rights were regarded at that time with an importance greater, I think, than their value warranted. The rights of Fellows and Associates were to be rigidly guarded ; the disabilities of Licentiates in the main confirmed. More give and take is, I suggest, now possible, and, moreover, advisable.

In the proposed Charter the Institute ask for the right, under paragraph 3, *a*, *b*, *c*, to register practically all architects in Great Britain. The principle is admitted that all such men, good or indifferent, are to receive an official stamp. This stamp may, or may not, be of some pecuniary value to them in the exercise of their profession ; but I submit that it will have no effect on the advancement of architecture, and do nothing whatsoever in the direction of unification.

There will still remain the two old divisions—architects who are members of the Institute and architects who are not. The latter, having their stamp, are unlikely to apply for membership, will never take any interest in our or any other architectural body, nor trouble to use any influence they may possess in furthering the advancement of the profession as a whole.

The suggestion I venture to put before you is that the Institute should invite all architects, who under the proposed new Charter the Institute state “ shall be inscribed on the Register,” to become members of our body.

If that invitation be generally accepted, it will doubtless mean some increase in the number of Fellows and Associates, but the majority of new men would probably become Licentiates. I may be told that the door to Licentiatehip is closed. It can be opened again. If there be any rule to the contrary, it can be rescinded in view of the exceptional circumstances at present prevailing. We shall have, it must be remembered, in any case to provide special legislation for men who have served through the war. They deserve it, and have the right to demand it. The majority won’t want to spend time going in for examinations for Associateship. Their sole idea, as I mentioned just now, will be to make up leeway and earn a living. If special terms are not offered to them, we shall lose them altogether. I admit it does not follow that because we give preferential treatment to them, the same should be necessarily offered to others. But there are few architects under forty who are not engaged in one way or another on work of more or less national importance. The committee of election could exercise discrimination ; and active service with the Colours would count in a man’s favour when his application was considered.

Some modification of the restrictions previously imposed on Licentiates would doubtless be necessary if that class be greatly increased. I have never understood why a Licentiate, if he wishes to signify his connection with this Institute, should be obliged to tack after his name a tail which may easily be longer than the name itself. And I see no reason why Licentiates should not have representation on the Council ; in fact, with a large increase in their number, representation would become imperative. I think Fellows and Associates alone should elect Fellow and Associate members of that body, but Licentiates might have their own voting paper and elect their own representatives independently.

These, however, are details. The main questions are : How would a large influx of new members help towards unity and the advancement of architecture ? And what safeguard is necessary to ensure that architecture shall advance ?

As regards the first, take a building simile. The Institute to-day may be likened to a block of concrete. It is not very large, but, despite our little differences in the past, homogeneous. It is strong enough to resist attack, and, more important still, to exercise

pressure. Architects outside the Institute, or any other architectural body, are unmixed matrix and aggregate. Any effort made by any one atom is personal and detached. It can possess little weight, and may be counteracted by the effort of another atom. Even if these atoms join together into a number of small blocks, the influence that can be exercised by each block still remains small and subject to counteraction. But if all atoms attached themselves to a central block, not only would the size of that block be more than doubled, but its power to resist interference or encroachment, and its ability to exercise pressure in the direction of extending its rights, would be increased proportionately to a still greater extent.

Outside architects at the present time benefit undoubtedly by action taken by the Institute. An appeal might be made to them to join on two grounds. First, that it is not fair they should benefit from results towards which they subscribe neither time nor money ; and, secondly, that adhesion would be not only to their personal advantage, but also eventually, if not immediately, contribute towards the advancement of the art in which presumably they are interested.

I should like to make quite clear that I am not advocating three *permanent* classes of membership of the Institute. Fellowship and Associateship should alone be permanent. The Licentiate class would be temporary ; but open at the beginning for an indefinite period. The date of closure can be decided later. For some years doubtless the class would grow in numbers until it reached its meridian. Then it would begin to decrease, at first slowly, later more rapidly. And decrease would result from natural causes, from promotion of Licentiates to Fellowship or Associateship, but principally because Licentiates, once admitted to membership of the Institute, would be interested in our body, would work for its advancement, and would have no wish to see their class perpetuated indefinitely. Their advice to their sons and pupils would be "Study so as to qualify for Associateship." The Licentiates would gradually disappear. I picture to myself a scene fifty years or so hence, when an old man would be helped on to the platform at a meeting of this Institute, and introduced to the members present as the last surviving representative of the Licentiate class.

The other question I asked was, if unity is accomplished, what safeguard is necessary to ensure that architecture will advance. The only safeguard is education. The greatest mistake, in my opinion, the Institute ever made was putting the cart before the horse five-and-twenty years ago, and establishing a scheme of examinations when education—outside such as could be obtained in architects' offices—was almost non-existent. We have advanced a little since then, but our methods are still chaotic and too much subject to individual caprice. A good deal still remains to be done in the way of settling funda-

mentals before the education of architects can be said to rest on a sound and satisfactory basis. This, however, should not be difficult to arrange if, as I suggested last year, the heads of architectural schools were to meet in conference, and the Board of Architectural Education consider the matter fully and seriously.

A course of training in a School of Architecture should, I submit, be compulsory for all students. At present it is only optional. I have already advocated this, and intend to urge it again when opportunity offers. It is useless to expect unity amongst architects so long as there is variance as regards the essentials of architectural education ; and some students receive no training at all except what they obtain in an architect's office.

The great war in which we are engaged will, it is hoped, eventually widen the horizon of humanity. It has already effected many and wonderful changes. It has proved the value of and absolute necessity for unity amongst allied nations, and how lack of unity spells disaster. It has upset all preconceived notions as to scale, not only in military matters and finance, but in all other subjects. Solutions which before the war would have been regarded as erring on the side of excessive liberality are already condemned as utterly inadequate. Sociological and educational outlooks have entirely altered their boundaries. The principle that all difficulties should be met squarely, and settled, if possible, on broad, comprehensive, farsighted and generous lines, is becoming more and more acknowledged. In that spirit we should approach our difficulties. I have ventured on some suggestions ; I would welcome others bolder and more sweeping. We want to end our old controversies once and for all, in the same way as we are resolved to end this war by a peace that shall be permanent. Neither a great war nor our own smaller squabbles must be allowed to crop up again twenty years hence. An absolute millennium may be an impossibility ; but if anything in the nature of a millennium can ever be reached, now is the time—following the all-round upheaval caused by a great Armageddon.

THE CHAIRMAN, PROF. W. R. LETHABY [F.] : I am in entire general sympathy with Professor Simpson's interesting Paper. The matter is of importance from the point of view of solidity, and also from the economical aspect. We must draw together with the aim of getting something done. I have long thought that our towns and our country cottages are not the best in the world, and I am not content with anything less than leading in the world. In these things, unless you aim at leading, you do not do much. We may not ultimately come out at the top of the world, but it is essential to aim at it. I take it that "architecture" should mean better towns, better cottages, better public-houses, better stations, better everything of that sort, and to get them we have all to work together. The President of the

Society of Architects has done us the honour to come here this afternoon, and I will call on him to speak to us.

MR. C. J. SADGROVE [F.] (President of the Society of Architects) : The Society of Architects has been aiming at registration for over a quarter of a century, and has been trying for some time to come to the Institute to discuss this and other matters, and I am delighted to hear from Professor Simpson that the suggested conference may conceivably take place. Whether the Society or the Institute tries to get a Bill through for registration, neither body will have the slightest chance of success if they are in conflict with each other. We are willing to lay our Bill before the Institute and to ascertain if there is anything bad in it. If the Institute Bill carries out the ideals of the Society we are willing to give way. We have no personal ambition to be "top dog" in carrying a Registration Bill through, but we want to see registration accomplished. We consider that without registration there cannot be proper unity of the profession. There is the same feeling in the provinces—you have heard their voices quite recently. I am a Fellow of the Institute, and I know there is a feeling of unrest in the Allied Societies. What do they want? They are working for registration, and if the Institute do not go ahead and discuss it now, and have a scheme ready when the war is over, they will be making a mistake. There are also many other professional questions which we can all discuss with advantage. The Institute doubtless—I know it is the case with the Society of Architects—are doing valuable work in preparing for after the war, in forms of contract and other things which require a great deal of improvement. The Institute of Builders, the Association of Master Builders, and the other Societies in the building trade are willing to confer with the Society, but they say, "If we meet you now, we shall have to meet the Institute at another time; why can't you all come together, so that we can have one conference, and avoid overlapping?" There is not time at this meeting to discuss details. The Society of Architects desire to come to the Institute and confer on these and other matters if you will give us the chance of doing so. We do not come cap in hand, because we believe we are doing good work on right lines, but we want to come and have a general discussion, to see if we cannot combine to do something mutually good for the benefit of the whole profession.

MR. H. H. WIGGLESWORTH [F.] : I have listened with great pleasure to Professor Simpson's address. It seems to outline the traditional policy of architects in the most luminous way, and establishes certain facts as to which, I think, all architects are in agreement; I speak, of course, of unity. The problem is how to arrive at unity without controversy. The President of the Society of Architects has spoken of registration, and I suppose registration is the neces-

sary link which will bind the individuals of the profession together. Professor Simpson and the President of the Society of Architects both speak of registration as if it were necessarily Parliamentary registration. In my humble opinion that is exactly what has wrecked any chance of unity for the last thirty years. There have always been so many difficulties in connection with Parliamentary registration that we are still just where we were. And those of us who heard Mr. Sidney Webb speak last week, and who have read the various articles which he has written with regard to professionalism, will understand that it is almost impossible of attainment. Those professional societies—such as the doctors and the dentists—who have obtained registration have created a vested interest which is not at all popular and which is not likely to be again acceded to. As a matter of fact these professions have not gained what they expected. Take the case of the dentists. I understand there are about 4,000 dentists registered, but there are about 50,000 dentists unregistered. Of what good is it to the profession to have only so small a proportion of its practitioners within the fold? The alternative seems to be registration without legal sanction or status—to have a professional union, such as the trades have. I suggest if we waive this Parliamentary sanction with all its difficulties of attainment and its uncertainties we can get some form of unity almost at once. The Institute, as some see it, has advanced the mental side of the profession, but has not paid the same amount of attention to what I would term the physical side—that is to say, whilst education has undoubtedly been improved by the Institute, the welfare of architects is pretty much to-day what it was in the past. If we could divide these two functions we would be in a better position. It might be desirable for the Institute to preserve the mental and educational side, to concentrate entirely upon that, and perhaps the Society of Architects would take over the welfare side of the profession. Having divided the functions, we could proceed to develop upon determined lines.

Various points occur to me. I do not think I need enter into the mental—the Institute's—side of the question, because it is proceeding on fairly sound lines, and should continue to make progress with the help of its various committees who deal with different issues, and with some additional committees which it may be desirable to form.

On the other hand, the welfare side means beginning *de novo*. I will only outline one or two points. For instance, with the power which numbers would give us, there is no reason why we should not have Parliamentary representation. We may not be able to have a member of our own, but we can surely get some members sufficiently interested in architecture to watch the interests of architects, and whom we can apprise of the various points on which we consider our interests have not been respected. A Parliamentary Watch Committee would be useful. If we had had such

a body we should not have been left so entirely in the cold as we have been in this war, not only to the detriment of the individual members of the profession, but to the deprivation of the public, who have had to accept a great deal of work from second-rate people when they might have had the best ability of the country.

Then there are the encroachments which take place in various ways by officials and others where the appointment of Watch Committees might be helpful. Again, we might have a Legal Defence Committee. It does not seem possible to treat this on voluntary lines. I think every practising architect should subscribe, say, a guinea a year. If we had 5,000 or 10,000 members we should be in a stronger position to contest suits such as those which have gone against us in the past. With a strong union we could more clearly establish our rights. Take such a matter as dry rot. Here is a disease liable to spring up anywhere. Recent cases have thrown the onus of the troubles arising from dry rot equally on the architect and builder.

There are various operations which architects might arrange in common: some have been attempted privately, the common information which all of us need about builders' materials and the latest patents. At present we have to find these things out for ourselves, but we might have a Bureau of our own which could be run without cost by making a charge for out-of-pocket expenses to those who derived benefit therefrom. The information does not need to be in catalogues, but on loose slips, so that any member can get access to the particular item wanted.

Then there is the question of tests. At present we may have to trust to chance in such matters. For instance, in regard to either electrical or heating plant, when these have to be installed we have either to engage the service of consulting engineers, at disproportionate fees, or to pass the contract without propertests. A technical staff might be secured, which few of us could afford individually, whose services would be available at a fixed fee; in fact, there are numerous things we could have as a body which would be of great advantage to us individually and make us more efficient.

MR. C. McARTHUR BUTLER, F.C.I.S., Secretary of the Society of Architects: I speak in my personal capacity and not as an official of the Society. I was pleased to hear the Chairman refer to the question of economy in relation to unity, because economy was one of the grounds on which the Society approached the Institute in regard to the proposed conference with a view to preventing overlapping by two bodies working with practically the same general aims or on similar lines. The Council of the Institute did not see their way at that time to agree to this suggestion on the ground that they were pledged to the Institute not to discuss controversial matters during the war. I submit that even registration, one of the principal subjects of the

conference, is not in itself necessarily controversial, and that broad questions of principle might well be discussed, if not settled, on non-contentious lines. I hope that one result of this meeting will be that the door will be opened for a conference, as I believe that those members of the Institute who are now serving with H.M. Forces would be pleased to find on their return that the Institute had in their absence made some progress towards unity.

Professor Simpson urges above all things the upholding of the dignity of architecture, but I hope the interests of architects will not be overlooked in any scheme of development. There are many architects who do not enter the profession merely for the benefit of their health, but with the legitimate object of making a living, and the professional bodies ought to give them every possible assistance in the business side of their profession.

Professor Simpson says that the principle of registration was accepted by the Institute in June, 1914, but I suggest that it was accepted by that body on the day on which the Institute was formed, because the mere fact of a number of architects forming themselves into an Institution is in itself an admission of the principle of registration. It is when we come to discussing the extension of the principle to the profession generally and whether it is to be compulsory or voluntary that difficulties arise; but these are questions which might well be adjusted. The proposal that the Licentiate class should be opened again is a matter for the Institute, and it is not for me to discuss this point, but I suggest that the Institute in reopening this matter is looking for trouble from within.

In regard to preferential treatment after the war of architects who have served in H.M. Forces desiring to join the Institute, I desire to put in a word for architects over military age or otherwise ineligible who have lost their practices and who, after the war, will not have the asset of youth in restarting their careers. In giving preferential treatment, the question of service with H.M. Forces should not be the only consideration.

I agree with Professor Simpson on the subject of compulsory education. The Society's registration measure is a Bill for the education and registration of architects, and it seems to me only reasonable that a man who has undertaken that compulsory education should be protected against competition by others who have not.

I am not a member of the Institute, and therefore I feel some diffidence in responding to Professor Simpson's invitation for suggestions of a bolder and more sweeping nature than those which he has made in the direction of unity, but it seems to me that some progress might be made on the following lines.

Opposition to schemes of development within the Institute appear to come from the Associate class, who do not see the advantage of admitting others except through the same door. So far as voting

power is concerned, the Institute is governed by the Associates, who recognise their power and see no great advantage in becoming Fellows. I suggest that Associates who are eligible by age for the Fellowship should be transferred without any increased fee or subscription during a given period, and that it be made easy for any Associate on reaching the required age to be transferred accordingly on favourable terms. This would transfer the balance of power to the senior class of Fellows, and still leave the Associate class, although less in numbers. Then, if unity within the Institute is the ideal and there is no necessity for statutory registration, a proposition with which I do not at the moment agree, I suggest that the members of the Society should be absorbed into the Institute *en bloc* as a separate class.

I hope that this question of unity in the profession after it has been ventilated here will not be allowed to drop; but that there will be a further conference on a much larger scale, and other conferences on the same subject in the provinces. I know exactly what the feeling in the provinces is on the question of unity. All country architects see the necessity for registration in some form, usually statutory, and the Institute will have to cater more for the provincial architects if this question is to be solved, as there is a feeling among them that architects in London look at these matters from a different point of view and do not recognise or know anything of the difficulties which architects in the provinces have to deal with.

MR. H. M. FLETCHER [F.] President of the Architectural Association: As to the Architectural Association, it lives in amity with all men. I do not think that is saying too much, and I do not think we have any cause or ground to quarrel with anybody. But I think Mr. Wigglesworth's suggestions were extremely valuable, and, as far as I know, new. The difficulty about Parliamentary registration, as he points out, is that the powers which have been created in other professions by Parliamentary registration—especially in the medical profession—have turned out to be so large that Parliament will be chary of granting them to any other profession in the future. Therefore if we want to gain power for our own ends, which are entirely legitimate, there is much to be said for Mr. Wigglesworth's idea that the registration should be in our own body. The one difficulty, as Mr. Wigglesworth pointed out, is illustrated by the case of the Dentists; they got registration, but it has not done what they wanted. The difficulty we have to contend with is that every man and every woman considers that he or she is a potential architect. If there is a building job coming along, they do not see why they should employ architects, they are ready to jump in and do it. Therefore you get an immense body of people who will not employ architects, and in that way the work will be done by unregistered people, and we do not get the benefits of registration. But if we were to adopt Mr. Wigglesworth's suggestion I think

that at any rate we should make a very powerful body, which would attain many of the objects of Parliamentary registration. I hope Mr. Wigglesworth will develop his idea.

MR. WIGGLESWORTH: I would like to answer one point Mr. Fletcher made, about amateurs encroaching on our province. I do not think it is very serious. All the members of the profession would be in control, they would enjoy certain legal and other rights which the independent amateur would be denied.

MR. FLETCHER: That was the point I meant to emphasize. I support Mr. Wigglesworth.

MR. ARTHUR KEEN [F.] sent the following communication: Professor Simpson's proposals are far-reaching and in my judgment generally sound, but I do not think they must be accepted too literally. The mere bringing into the Institute of all who might wish or might be induced to enter it might result not in added strength but in a considerable dilution of its present strength. Adopting the simile of the block of concrete, it may be pointed out that a small block of sound concrete is more efficient than a large one in which inferior material is mixed with the good cement and ballast. The whole thing must be looked at in the light of the standard of attainment and position that is required for membership; and while I feel that all possible, or at least reasonable, facilities for admission should be given they should be used with due safeguards to prevent the admission of those who are not sufficiently well qualified.

I felt at the time of the admission of Licentiates that we should have been on much firmer ground if each candidate had been personally interviewed by the Committee that regulated their admission. An Associate cannot be admitted until he has met two sets of examiners and two representatives of the Board of Architectural Education, but the Licentiates were taken on the strength of their nominations and the illustrations of their work that they sent up. This is a mistake that should not be repeated. By all means let the admission to the class of Licentiates be reopened, but interview the candidates personally and take all the trouble that may be necessary to ascertain that they were personally the authors of the works that they submit: if any doubt exists let them be examined in design. Having passed them in this way, admit them to some form of actual membership and give them representation. At the same time offer the same terms to all the present Licentiates and grant them the same privileges. If they cannot be called Associates call them Members. At present the Licentiates make no practical difference to the power or influence of the Institute: it is unjust to them and unfavourable to the Institute, but I quite feel that having regard to the actual circumstances of their admission no alteration should be made until some such course as I have indicated has been taken.

As for the Society of Architects, the procedure is simple. The whole matter was exhaustively studied a few years ago and a scheme was drawn up which was acceptable to the Councils of both the bodies concerned. Let that scheme be revived and all made ready for presenting it to the general body of the Institute when the war is over and "the boys come home." If I am not mistaken it will then be adopted. Certainly very good reasons could be adduced for adopting it. The war has shown us in countless instances that anything can be accomplished by persistent pressure—from tightening a blockade to removing a Prime Minister or even interning a German—and it is obvious that the standing of the profession might be greatly improved by really united action on well-considered lines. The term "The Profession" is, however, an indefinite term: we must make up our minds first as to the standard that we are prepared to adopt, and, second, as to the best method to be adopted for admission to the Institute of those who have not been through the schools and cannot well be put through the ordinary examinations. But I feel sure that a mere extension of the class of Licentiates will be practically useless to us. What we must aim at is to transplant those now in the Licentiate class and outside and to add them to the effective strength of the Institute.

MR. ARTHUR CLYNE [F.]: I understand Mr. Wigglesworth to suggest that the Royal Institute should have the care of the mental side of the architect's equipment, while it should be left to the Society of Architects to look after his welfare: "mental" on the one hand, "welfare" on the other. Will Mr. Wigglesworth explain the distinction?

MR. WIGGLESWORTH: By the welfare of the architect I mean everything that concerns the architect and the position of the architect, in distinction from architecture. The Institute represents the art of architecture; and the registering body, whatever it be, would represent the architects. The grounds on which I developed this idea were purely those which Professor Simpson put forward, with a view to discover common points of union. One has lived long enough to see that the insignia attained by certain architects is a source of pride—perhaps undue pride—to those who have attained it, and of envy to those who have not; and it seems to me that, whilst it is satisfactory to find Fellows and Associates of the Institute proud of their position, it is liable to react against union. Why not leave aside the question of insignia—of status—and unite on the common basis of community of interests? Why should we not commence by union? If it should end in Parliamentary registration, let it end there; that does not interest me for the moment. Professor Simpson has ably advocated unity, and on that we are all in agreement.

MR. A. R. JEMMETT [F.]: I had not the privilege of hearing all Professor Simpson's paper, so I may be repeating something he said. But I would like to

put this point of view forward: that, to my mind, the great trouble about unity is largely due to lack of unity of idea, to start with. You want a philosophic or theoretical idea of what an architect is, and of what our interests are, for which we can all strive, and then you can acquire practical unity. Unity of action is the outcome of unity of thought. At present I think our interests or positions are very diversified, the interests of some architects are very different and seem almost opposed to those of others. Some specialise on designing beautiful country houses and deal only with delightful country people; but other architects in the provinces or the City of London have their time taken up with pettifogging details—surveying, party-walls, and the business aspect of it. You could go on and pick out half a dozen classes of architects, and you find that their interests do not coincide. Therefore, while we are at loggerheads on fundamental principles and ideas, we are bound to have difficulties in getting practical unity. My view is that we ought, first of all, to try to make up our minds what an architect is, what his proper duties are, where he is doing his own fundamental essential work, and where he is doing work which is as well or better done by other professions. Until we do that, and so obtain a more definite and complete idea of what an architect's best interests are and should be, I do not think we shall get much further forward. I hope the meeting will bear that point in mind. The absolute necessity of unity is so obvious that it is not necessary to enlarge upon it. But I think that in the future we shall get even more than the unity of the profession in England. After the war, of course, nobody knows what will happen, but we can safely say we shall not be where we were before. And the difference seems likely to be on the side of Internationalism. I can see a confederation of all the architects in the universe coming along. Mr. Sidney Webb talked to us about architecture as a public service of England. I would look upon architecture as human service, as a service for all humanity. And it is for us to enquire how we can best render that service. It will be for an authority in public administration, like Mr. Sidney Webb, to say where we are wanted. Before long we shall have to have these conferences between architects on an international scale to investigate and determine how architecture may be best placed at the service of humanity. But before we can start properly we must have our own clear ideas upon unity and what we consider architecture is—before, among architects of different nationalities, we can discuss architecture to any good purpose.

Now to get to a matter which is very much in our minds. Mr. Wigglesworth has put forward the idea of two societies: one to look after architecture, the other to look after business interests. That was put forward two or three years ago, but was not very favourably received. It is a very good idea, however, for the interests of architects as private individuals very often conflict with the interests of architecture:

there is no way out of it. If you follow a liberal art like architecture, follow it whole-heartedly, you often find you are doing so to the detriment of your pocket, your private interests. No society can look after both, and that is our difficulty here. We get cut into two sections. One man comes down full of generosity and wishes to do something for the good of architecture, another comes down to protect his pecuniary interests, and the moment one opens his mouth the other contradicts him, and they go on cancelling one another out. And we shall go on cancelling one another out in this Institute to the end of time. If you get an Architectural Society, as distinct from a Society of Architects, an Architectural Society composed of all the men in the country who are interested in architecture—architects and others—for improving architecture, you will be doing much good. And if you like to have a Trade Union or Guild for the protection of architects from the pecuniary point of view, very well: that is another kettle of fish. The two Societies will sometimes be in flat contradiction, but I think it is better to have flat contradiction between two societies than among the members of one society, because in the latter case we annul one another's efforts, and the Institute takes no strong action in either direction.

With regard to the Society of Architects accepting that work, that is a matter for discussion; but I do think that if at the end of the war we have not come out with either one complete society, united among ourselves, or with the various functions of the two societies properly mapped out, we ought to be thoroughly ashamed of ourselves. To allow the war to go on, all this struggle and upheaval and reconstruction of society to go on for these several years, and to find ourselves at the end of it still haggling over pettifogging details which are of no interest whatever to humanity, would be a humiliating confession of failure. We have got to attain a unity out of the necessity of our own self-respect.

MR. R. GOULBURN LOVELL [A.]: As Chairman of the Associates' Committee existing before the war I claim to speak for a very large number of Associates, who, as you know, are the dominating class of this Institute. At the last big conflict we had in 1914 the Associates were beaten in the room, but if the letters received from the provinces could have been read the Council could have claimed no real victory. The vast number of men were strongly opposed to the scheme put forward by the Council, and at the following election the Associates made their influence felt. Their disapproval of that Council was made clear and emphatic. I don't believe a single member was returned to the new Council who had not been approved by the Associates' Committee. Speaking on behalf of these Associates, most of whom are doing their duty at the Front, I believe it my duty to make an emphatic protest against anything being done which is at variance with the undertaking given by the late President at

the outbreak of war. The idea of a meeting between the Institute and the Society of Architects might be good in helping to bring about the unity of the profession, but the suggestions put forward by Professor Simpson I consider most dangerous, and if continued in further they could rightly be termed most improper. They would certainly meet with a great deal of opposition from the Associates, possibly leading to another cleavage in the profession. Rightly or wrongly these young men have followed on the lines laid down by the Fathers of the Profession. They have passed the examinations required by the Institute and they very properly object to any other body of men being brought wholesale into the Institute unless through the same door as they themselves have passed.

PROF. S. D. ADSHEAD [F.]: Probably no one in this room is less competent to discuss a subject of this kind than I am, but one or two general questions have arisen which are of a controlling nature and therefore very important. It is very obvious that the question we are discussing comes very near to being within the meaning of the word "contentious." But I think that probably Mr. Lovell's way of putting the case for the Associates is perhaps a little over-reaching the contentious nature of the subject; I hope so. No one is more in sympathy with the Associate who has worked hard and passed his examinations than I am; no one would more appreciate the resentment he would feel in having others introduced into the Royal Institute of British Architects who have not gone through the same hard training. But there is great importance in this unity: we are all agreed about that. The point is: how can we arrive at it? It seems to me it is a very great pity that the Society of Architects cannot in some way be joined up with this Institute. Why can't we begin in a small way? I suppose the real issue with the Society is registration. I do not intend to enter into that, because I do not know exactly what it involves. But one point is very clear, that solid unity of architects is in itself of very great strength in the eye of the public, almost as great a strength, I think, as a registered body; and I think if we can get the Society to join us, if it is only in sharing the same rooms to begin with, they might gradually see their way to become federated in a closer and closer professional status, without in any way infringing upon those rights and that position of the Associate which he rightly claims to hold. I think if we were to attempt to do something on those lines, beginning in a very small way, we might gradually work the Society in. I have long felt it was a very great pity that these two institutions should work separately.

There is another point of a general nature, and that is, we have heard a great deal about the welfare aspect of the profession and the architectural aspect. I would point out as a warning that we, as architects, in the eyes of the general public can carry this welfare or interest of the architect—his private interest, his

pecuniary interest—a little too far if we are not careful. I am certain I am right in saying that our first interest must be architecture. The other will follow. It is putting the cart before the horse to look after the architect and let architecture take second place. I cannot emphasise that too much.

MR. S. B. CAULFIELD [F.] : I was very interested in Professor Simpson's paper, and would like to carry his block of concrete simile a little further. Members of the Society and of other architectural bodies may be regarded as the matrix and aggregate for the new concrete. Certain conflicting interests for the moment keep them apart not only from ourselves, but from one another. Water must be added to form concrete and to combine old and new; and this may be likened to the moving spirit working with a will to accomplish unity. The old block must be hacked away on the outside to form a key, which process may be compared with the R.I.B.A. altering its Charter to prepare for the addition. And the one other important operation need not be explained, which is to sweep away the dust and cobwebs clinging round the old block.

THE CHAIRMAN : I think the good-will of this meeting has been apparent to all of us. We have not met here as a Society of Architects, or as an Institute, but we have met as architects, and there has been good-will all round. May I now follow on what Professor Adshead told us? I feel that he said something that was idealistic on one side, and yet which was good policy on the other. It is only by getting the public's consent and interest that we can exist. And it is only—though I hate to put it so—by fulfilling, in a high sense, a public function that we can hope at last, and in a large way, to get our remuneration.. Too narrow a view of the architect's interest is always cutting away the foundation on which he stands. Our friend Mr. Butler, who spoke so ably, said at one point of his speech that architects did not go into the business for their health, but to earn their living. It is perfectly true; it is good, honest, common English sense, and it is awfully difficult to meet it, for it carries conviction. But yet it must not be said, because it is not wholly true. It would not be a defence in a court of law to say, "I did not do it for public service, I have got to earn my living." The soldier does not follow his vocation "to earn his living"—quite the reverse very often. The clergyman, it is supposed, does not perform his service to earn his living, although he does earn it incidentally. The doctor, too, did not take up his work "for his health": he took it up for other people's health. Architects, too, exist to fulfil a great public function, and that has to be recognised.

PROFESSOR SIMPSON (in reply) : There seems to be absolute agreement amongst everybody as to the necessity for unity. But there seems to be a diversity of opinion as to whether unity should be found in one body or in two bodies. Some think one body

only, others that unity would be best obtained by a division of the work and duties of an architect under two bodies. Personally, if I may say so, my idea is the one big body. I will ask you this question, who would you say exercised the greater power at the moment, engineers or architects? I think there can be no doubt that the engineers are the stronger professional body, because they are united. There is the Institution of Civil Engineers, to which, I am told, practically every civil engineer in England of any repute whatsoever belongs. Then there is the Institution of Mechanical Engineers, a similar remark applies to them and to the Institution of Electrical Engineers. I do not think there is sufficient diversity in our work to necessitate two separate bodies. They would overlap, and must overlap to a certain extent, with the result that, instead of unity following, the reverse would be much more likely. That, at all events, is the way I look upon this matter. I should like to see all the architects practising in England brought together under one distinct and separate body. I was sorry to hear—though I suppose the views put forward were only natural—that the Associates are likely to stand out rigidly for what they regard as their rights—rights which, they consider, were conferred upon them by the passing of an examination. Well, I passed the Institute examination something like thirty years ago, but I do not know that the mere passing of that examination made me any the better, and I never thought that it put me on a pedestal different from that on which men sat who had not passed it. I would like to ask the Associates to think more of the actual work that is done by men than of the mere passing of an examination. If the Associates can show that the work of the men who might be admitted as Licentiates is inferior to their own, there is reason, undoubtedly, for keeping them out. But if such is not the case I cannot see that the mere passing of an examination gives Associates the right to keep others out of the Institute who may desire to come in. I was very glad to hear Mr. Jemmett say what he did: that, if we do not get a little forwarder, we ought to be ashamed of ourselves. And one of the advantages of these conferences is that they are informal; we can therefore talk. But I do sincerely hope that in the same way as the conferences last year had excellent results—and I remind this meeting that these conferences were instituted on the suggestion of our Chairman to-day—so I hope that this conference and the others which will follow will be equally beneficial, and, as regards this conference especially, do something which will forward the unity of our profession.

Touching the question of Registration referred to at the Conference a lesson may be learnt from the experiences of South African architects who were granted Statutory Registration a few years ago. Mr. Sidney Webb in his Papers on "The Organisation of the Architectural Profession," published in recent issues of the *Journal of the*

American Institute of Architects, says:—"The South African branch of the Society of Architects, supported by its parent Society, agitated strongly for statutory registration, which it succeeded in obtaining in 1909, by the Architects' Private Act (Transvaal), which the Provincial Legislature passed in that year. Under this Act all the architects then practising as principals in the Transvaal—180 in number—were enabled to unite in the Association of Transvaal Architects, and, in return for an initial fee of five guineas and a subscription of five guineas a year, were placed upon a statutory register. Only registered practitioners are allowed by law to style themselves architects. They elect a Council to manage the register, but, owing to defective drafting of the law, the Council finds itself powerless to take any other action on behalf of the profession. A scale of fees which it sought to impose by by-laws has been set aside by the Courts. Moreover, the Council finds itself unable to stop all sorts of "quacks" and "experts"—civil engineers, builders, and so-called "architects"—from advertising for and undertaking architectural work. Under these circumstances the movement for any extension of statutory registration to the whole Union makes little progress, though a long and complicated Bill was prepared in 1913."—ED.

THE TWO BUILDING PROFESSIONS.

By R. BURNS DICK [F.]

Extracts from the Presidential Address to the Northern Architectural Association, 19th December, 1917.

I HAVE referred to the work being done in conjunction with the R.I.B.A., and that leads me to the thoughts that I wish to give expression to, and I hope they will not be considered of a contentious nature, for I am rather opposed to the multiplication of utterances just now that only lead to confusion and nullify effort. . . . It seems to me that there is a strong tendency to be for ever tilting at the R.I.B.A. Much strenuous and unseen work is being done there by men of great ability and discernment, to whom we owe much; and many good movements are there initiated that are often still-born because of that carping criticism that sees only the weaknesses inseparable from all human effort, and which end not in improving but destroying. How can progress be made if we are to wait until every detail of a projected reform is so framed as to meet every divergent view before it is launched?

We must make a move if we want to get on our road. If we recognise that where we stand is untenable ground, then let us get out of it. What if we take a wrong step occasionally? We are bound to do so at times. We will have bought experience, without which we cannot progress. How easy it is to be destructively critical. How vain we are of the cheaply earned notoriety. Let us rather give sympathetic support in obscurity, if we cannot be constructively helpful by our interference. We in the provinces, as elsewhere, have been heard to blame the Institute for the lack of recognition our profession have received by the Government at this time, when our services would have been of undoubted value to the nation. Have we ourselves been more successful in obtaining recognition by our local Authorities? I think not. I believe a genuine effort was made and promptly by the Institute.

The term "architect" in the official mind only seems to carry with it the ability to provide ornamental trimmings, to be considered in the nature of luxuries. Where works of real public utility are concerned, the borough engineer, council surveyor, or even road surveyor, are accepted with-

out question as the oracles to be employed, no matter how far removed from their province the matter may be, and how much it may be a question essentially for the architect and him only. These officials have usually enough call upon their time, skill, and intelligence in dealing with the work for which they have been appointed without saddling them with projects that require totally different training and experience from that with which they are equipped. There is a failure on the part of public bodies to understand that even a general knowledge of all the varied skill and experience that is necessary in the building and engineering that go to make up the structural work they control is beyond the capacity of any single individual, no matter how gifted; and even if it were not, the remuneration frequently considered adequate is so low as to obtain only but incompetence and, in consequence, extravagance or inefficiency, or both. To fail to call in the architect or engineer, whose training and experience specially fit him for any contemplated public work, is to fail in doing the best in the common interest. To increase the staff of an official, as is often done, with the idea of economising by avoiding the fees of outside practitioners, does not meet the case; for the ultimate results still rest on the skill and initiative of the responsible official, and a large staff does not improve his intelligence and capacity. On the contrary, he loses that necessary personal touch, which results in inferior work. We see this every day in the muddle, confusion, and waste which is so evident in the hundred-and-one overstaffed and unwieldy Government Departments hastily improvised to meet the present crisis. Where an able chief has no more than he can keep in personal touch with, and a staff no more than sufficient to carry into effect the decisions and creations of his own mind, there you get nearest to absolute efficiency. Where a department grows beyond that, as at the present time, it may be impossible to avoid, inefficiency and waste invariably creep in. To get the right man for the right place may be a difficult matter, but the failure is generally due to lack of understanding as to qualities essential or possessed. This has certainly been so in the matter of the utilization of the architect since the outbreak of war. Because the Royal Engineer met the needs of the Army in peace time, it seems to have been assumed that, with the vast enlargement of the Army, and its enormously increased complexity of building and contingent requirements, the engineer—not only the civil engineer, but the engineer of no matter what *genre*—was the first on whom to call for all and every nature of such requirements. Well, I have no great quarrel with that, for all the engineers they could get would be valuable for some part of the work, but their indiscriminate use—electrical engineers to look after building work, gas engineers to do with drainage schemes, and so on—and the failure to use architects equally with engineers is to be greatly deplored. If architects had immediately been employed in large numbers in connection with planning of camps, provision of hutments, billeting of troops, and many other ways in which their general and special experience would have been useful, very large economies in time and expense, I believe, would have been effected. Any self-styled practical or business man, failing the engineer, was evidently preferred. All of which shows a confusion of thought on the part of those who might know better as to the relative value of the engineer and architect. . . .

This kind of division in matters utilitarian between the two branches of the constructive arts leads me to consider the relative positions they occupy. The fact that we are ruled out of court at such a crisis in our history goes deeper than any sins of omission or commission on the part of the Institute. Its origin must be sought in the dawn of that great new industrial era that opened in the early years of last century.

The new and ever-increasing demands made by industry, seconded by the inventor and worker in the conversion of iron for the construction of works entirely of a utilitarian nature, produced the new school of designer and constructor

known as the "Engineer," whose main concern was to take the new needs and new material and employ them in the scientific methods that his skill and growing experience were gradually evolving in the brilliant way that time has disclosed, without however any conscious effort to give aesthetic expression to his work. He was essentially practical and that was the demand of the age that produced him.

The architect has held the proud claim of being the greatest of all historians of man's march through the ages, ever since he extricated himself from the primeval morass and set his foot on the ever hardening highway of civilisation. . . .

But why have we been robbed of our right to be considered practical? What constructional problems hitherto had been beyond the architect? Did he not do the most daring and difficult feats ages before the new engineer, with his "machines," to the purely practical, came into existence? Was he not practical? Essentially so, but he did not end there. Are his aqueducts, stadia, baths, bridges, fortified strongholds, disfigurements amongst their surroundings? He handled his materials with imagination, and bent the most intractable to his will. It was not sufficient that his buildings should be adequate for the practical uses for which they were erected. The Colosseum was perfectly arranged for its purpose; and think of the inspiring grandeur of the Roman amphitheatres wherever found. . . .

There is no doubt that the architect, wrapped in the proud tradition and convention of his great art, failed to rise to the changes taking place around him, failed to see that the mantle of his daring and resourceful forerunner was slipping from his shoulders, and that a new race of constructors was arising unrestrained by those traditions of the centuries which in the architect's hands should have moulded with their graces the new creations of the industrial age. That these works could have been so handled can be seen in those cases where the architect did rise to his responsibility and seize his opportunity. A notable example of this genius of adaptability which continued down through a thousand years can be seen in our own old city, in one of the creations of the new age, the Central Railway Station (standing as it does within a stone's throw of the Norman keep), a monument to the skill of its designer, John Dobson. Enter it and see the grace of his iron construction of seventy years ago, and contrast it with the extension in steel of the engineer of half a century later. The wide cleavage between the architect and the engineer is there epitomised, and its acceptance has grown with the new generations.

I am not attempting to pull down the engineer from the strong position which he has fully earned. Indeed, the story of his rise to that position in the short space of a century is a romance fascinating in the extreme. Some of his great achievements will rank with the great monuments of all time. His canals, his dams, his great marine constructions, his lighthouses, his quays, will have something of the endurance of the great building works of the past, and their outstanding benefit to man's progress invests them with a quality from which no lack of the aesthetic can detract. But his purely steel structures, wonderful as many of them are, I venture to think, will leave little permanent trace in the long history of building. . . . Naked steel has only been filling the gap until the engineer could produce a greater and more lasting medium in which to express his genius. This he has found in ferro-concrete, and with it and him we have an opportunity to regain some of our lost heritage. This seems a favourable opportunity to boldly say what is in my mind, and what may lay me open to sharp criticism. The civil engineer is essentially a son of architecture just as much as the true architect is an engineer. He is not a rival, as he is sometimes looked upon; he is growing up side by side with us and sharing with us the common privilege and duty of worthily expressing in concrete form the multifarious activities and advancement of the age we live in.

If he has for the most part given himself up to meeting the purely materialistic demands of the time in a purely materialistic manner, that cannot continue; for the blind, fierce rage of wealth and power lust that for a century has thrown the inventor, the scientist, the artisan—all the controllers of the world—of the peoples—into the cauldron of "materialism," shows signs of spending itself. We are beginning once more to wake up to the age-old truth that "Man cannot live by bread alone." The wholesale disfigurement of the countryside, the grimy, sordid and congested life of the worker, living in a polluted atmosphere of mind and body, the dried-up sympathies of the power controllers, are too big a price to pay for material gain (even if more evenly distributed), and it is not a chapter in history that will place the architect or engineer quite so high as he imagines. Signs are not wanting that pure science alone in the designs of the constructional engineer will be declared equally as unsatisfactory as art alone in the work of the architect. In both cases the needs must be met in the most practical and scientific manner, but, in addition, must be imbued with that subtle something which is expressive of that other side of a people's intelligence, which for want of a better name we call "soul." The art of the architect, so far as building works are concerned, has been the medium of this expression, and good or bad as that art may have been at any given period, it has always represented the level attained by the spirit of the time, not merely the individuality of the artist.

I say that this finer quality is beginning to assert itself—a reaction is setting in, and one of its most pronounced signs is in the growing demand for better housing conditions for the workers, better working conditions in the factories. It is also shown in the choice of sites for works, in their lay-out, in a feeling for the amenities of the neighbourhood in which they stand, in the replacement of old health-destroying workshops by light, spacious, and comfortable erections. And, curiously enough, it is in the most critical time in our history that the pace in this all desirable tendency is being forced. The erection of canteens is being vigorously encouraged in connection with works, designed wherever possible in such a manner as to increase the comfort, happiness, and self-respect of the workers. The professional journals have already shown us excellent examples of these buildings, indicating a quiet, suitable, and architectural character, separating them from the atmosphere of the workshop. The administrative buildings of factories which are near public highways, as they nearly always are, are made pleasing and interesting architectural features of which their surroundings need not be ashamed. The works themselves, though often of less substantial material, are treated in an unobjectionable manner, and often with considerable grace. Electric power has transformed their interiors into intensely interesting and attractive hives of industry. Close by, in an increasing number of cases, may be seen new garden colonies, showing the employer charming in their exterior appearance, and adding greatly to the pleasure of home life as their external appearance, a state of things which cannot fail to react on the health and character of the occupier, and provide a valuable asset to the nation. These are signs that cannot be ignored, and what makes them more encouraging is the fact that both the capitalist and the worker are at the back of the changes.

Now, all this points to a time when the architect and engineer will wake up to the fact of their common parentage, and will see that only by recognition of their inter-dependence can they carry on the best traditions of the great builders of the past, and worthily represent in their monuments the might and soul of the age. The self-sufficiency that arrogates to itself pre-eminence in the building arts is out of place in either one or other camp.

What we do want is to recognise and get the public to recognise that we are by training practical, that we cannot be good architects without being so, that the qualities that make up a good engineer are to be found also in us. We

do not want to minimise the splendid qualities of the engineer, but we do want to emphasise the fact that in much public work, as in private, the special training and experience of each are necessary, that neither one nor the other alone is sufficient to give the best attainable.

The time appears to be approaching, if it is not already here, when we must frankly collaborate with the engineer in almost any large work upon which we are engaged, and give him his share of responsibility and credit. Either we must permanently work together and become "architects and engineers," or, where the nature of our practice does not call for this permanent alliance, call in the engineer as a collaborator when necessity arises.

The problems with which an architect of to-day has to grapple are infinitely greater than his predecessor of, say, a century ago was confronted with. The architect of that day could himself handle all the elements of his designs and personally direct their materialisation. To-day also he is expected to do this, and it is essential to the best work that he should continue to do so in the sense of conceiving and working out the scheme as a whole; but all details are no longer those of material and craftsmanship, well within his ability as of old, but are intricacies of ~~the~~^{of} highly trained specialists, the nature of whose work is known by him in a general way.

He is none the less the author of the work with which his name is associated as architect because he is no longer able to work out and specify in detail all that goes to the complete realisation of his conception. Of old, the variety of his mental attainments were equal to those demands in most buildings with which he had to deal; but now the most versatile and highly equipped mind is insufficient by itself to evolve all the complex details of modern practice. In addition to as much skill as was ever required of his fore-runner, he must be able to select and ally with him other minds of as high quality as his own, but trained in the special crafts that are to form part of his work as a whole, and direct their energy into the niches he has prepared for them. It is a great position which will not suffer from frank and open collaboration with the civil engineer—not the contractor engineer, but the professional expert who can be treated as a frère.

What could better ensure perfection in great works, whether they are classed as architectural or engineering, than such an association? We want more architecture in erections that are looked upon as purely utilitarian in character; and we cannot do without engineering in the most architectural of a nation's work. A shipyard or dockyard would appear to offer little scope for the architect, but it is surprising how much there often is in such work that is essentially of a nature requiring the special training of an architect. Probably the one weak spot in an otherwise fine engineering scheme may be found in the handling of—say the office block, canteens, gatehouses, and such necessary items that have been carried out without the engineer's complement, in this case the architect. The same occurs where the architect is the controlling head and attempts from his own imperfect knowledge to direct himself the often important engineering section of his scheme.

It is true that in some cases a satisfactory collaboration is arranged, but too often there is a tendency to ward off and keep severely in the background and to treat as a rival the professional adviser that we cannot do without. This want of open alliance with the consulting engineer leads in many cases to dealing with engineer contractors, who naturally push their own methods irrespective of whether they are the best or not, and the architect cannot discriminate as would the independent engineering consultant.

Much might be said for such an alliance in its effects on combating that growing practice on the part of the authorities of entrusting the designing, as well as execution, of huge building and engineering schemes to large contracting firms. Such a principle is thoroughly ~~dangerous~~ and detrimental

to the best interests of the community. Furthermore, it threatens to reduce the trained professional man to the position of henchman to the contracting syndicate, forcing him, for want of independent work, to enter their employment.

Public bodies and the public generally should by one way or another be made to realise the value of the oneness that unites the engineer and architect, and above all that we are essentially practical by nature of our training and experience. There is much to be done in order to bring this about, both on the part of the Institute and the Allied Societies as well as by individual architects. Certain matters that are at present under discussion have a considerable bearing on this, and I believe will bear fruit. If I am right in my supposition as to American methods of practice, then the very highly successful work that is being done by our Transatlantic confrères will give some support to the views I have enunciated.

In these somewhat rambling and, I fear, immature, thoughts I have endeavoured to suggest the desirability, if not the necessity, of some closer alliance between the two building professions—civil engineering and architecture—and I give them only as thoughts that have forced themselves on my mind by my own experience and observation, and cordially invite the criticism to which so many of them no doubt are open.

AMERICAN TIMBER.

A Special Meeting of the Practice Standing Committee, to which the Council and the Science Standing Committee were invited, was held on Tuesday, the 18th December, 1917, to meet Mr. John R. Walker, Trade Commissioner of the United States Department of Commerce. The Chairman, Mr. George Hubbard, in introducing Mr. Walker, stated that he had come over to England with the primary object of informing this country how it would be able to obtain American timber after the war, and he would explain to the meeting the quality and supply of American woods generally and in particular, and be prepared, no doubt, to reply to any questions and take part in the general discussion of the subject in all its details.

Mr. WALKER, addressing the Meeting, said:—

All the world is interested in the question of the supply of raw materials which will be available at the conclusion of the war. Your nation, which imports so large a part of its raw materials, is deeply concerned with this question, and one of the most important of these materials is timber. The American nation is interested in the question of timber, because it is one of our chief natural resources, and because our Allies—Belgium, France, Italy, and Great Britain—are looking to us to play a large part in the reconstruction which must take place at the end of the war. Neither your nation, nor our own, desire to be found unprepared for peace, and I have been sent over here by my Government to study the whole situation with respect to timber importation and usage, with a view to formulating plans which will ensure that such supplies as we are able to furnish will be used to the best advantage.

When I embarked upon this mission I examined the statistics relating to timber production and timber importation by the various countries of the world, and was struck by the fact that while Great Britain is the largest importer of timber, and ours the largest producer of timber

the amount of business which we have done with one another has been relatively unimportant. Great Britain normally imports some 2,500,000 standards of timber per year, and of this amount only 250,000 standards, or 10 per cent., comes from America. Our nation produces 20,000,000 standards of timber per year, which is as much as all the rest of the world combined, and only 1½ per cent. is shipped to you.

My study of the situation during the three months that I have been here has led me to the conclusion that the smallness of this trade is not altogether a matter of geography, but is largely due to the fact that your practice in the use of wood for general construction purposes does not coincide with our practice in producing it, and that this has served as a bar to a larger trade.

During the past fifty years or more that your nation has looked to the outside world for the major portion of its timber supplies, 90 per cent. or more of your importation has been the soft woods of the Baltic and of Canada, and your building practice has been based upon the characteristics of these woods. It has been found that scantlings and joists of certain sizes are required in these woods to support certain strains, and these sizes have come to be recognised as standard by architects, builders, and local authorities.

When we in America began to build with wood in the colonial days we built with our Northern yellow pine and spruce, and employed the same standards which you use. This practice was brought over from the mother country by our ancestors. Since the middle of the last century, however, our Northern soft wood forests have begun to show signs of depletion, and our saw milling industry has become largely established in our Southern and Far Western forests. In our Southern pine forest, which stretches along the coastal plain from Virginia to Texas, are found three sub-species of timber, which we denominate under the collective name of Southern yellow pine. These three sub-species are long leaf pine, short leaf pine, and Loblolly pine. The long leaf pine has been known in this market as pitch pine, and the short leaf and Loblolly pine as North Carolina pine. The chief characteristics of the long leaf pine are that it is of relatively slow growth, and consequently close grained and possesses exceptional strength. Also it consists largely of heart wood as distinguished from sap wood, and contains a large quantity of pitch and turpentine, for which it is great durability when exposed to moisture. The Loblolly pine on the contrary is a tree of rapid growth, and consequently wide grained, and is almost entirely sap wood. It has less strength and less durability than long leaf pine, but is better adapted for use in joinery, as it is more easily worked, and takes paint better because it contains less pitch and turpentine. The short leaf pine occupies a middle place between the long leaf and the Loblolly. Certain specimens approximate the long leaf pine and others the Loblolly pine.

The annual production of these Southern pines is in excess of 7,000,000 standards, and it is the wood which we use more largely than any other for general housebuilding and construction work. For interior finish and joinery and for the carcassing of buildings we use these three woods interchangeably, and when we want exceptional strength we stipulate that the material must be close grained, and when we want exceptional durability we stipulate that the material must be free of sap. While it is the long leaf pine which most readily complies with these requirements yet a

short leaf or a Loblolly timber which also complies with these requirements gives equal satisfaction. The test for strength is not the sub-species to which the particular stick belongs, but the closeness of the grain, and the percentage of hard or "summer" wood; likewise the test for durability is not the sub-species, but the percentage of heart wood.

Our other principal soft wood production is in the Pacific North West, of the wood which we call Douglas fir, and which is called here Oregon pine and British Columbia pine. The annual production of Douglas fir is 2,500,000 standards. This wood is used by us for all the purposes for which we use Southern pine. It is a wood which is practically free of sap, and is consequently durable, although somewhat less durable than the best long leaf pine. Very large sizes are obtainable in this wood, and for the next few years while ocean freight rates remain abnormally high it will perhaps only be the larger sizes which can be profitably imported. The weight of Douglas fir is slightly less than the weight of long leaf pine, and its strength correspondingly less. It has about the same general strength as short leaf pine.

When we began using Southern pine and later on Douglas fir, we found that we were using a harder and a stronger wood than the Northern pines and spruces which we had previously used, and in course of time there was evolved through the collaboration of architects and timber producers certain standard sizes of joists, scantlings and so forth in these woods, which are smaller than the sizes which we had formerly used in the softer woods, but which produce not only an equivalent of strength but a surplus.

Without at this time going into all the details of the subject of standard sizes, a general view of the situation may be given by the statement that the general practice in our Southern and in our Western pine industries is to manufacture all material to even inches in width—in other words, the stock sizes are 4, 6, 8, 10 and 12 inches in width by 1, 1½, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 12 inches in thickness.

The custom with the saw mills is to set their saws to produce the dimensions above given in the green timber. These stock sizes are then piled for drying—the smaller sizes and boards being frequently artificially dried by dry kilns—and in the process of drying the timber shrinks slightly below the sizes above named. The rate of shrinkage in these woods is not as uniform as in the slower-growing Baltic and Canadian woods. Consequently the general practice is to run these dry boards, scantlings, and joists through a planing or equalizing machine, which finishes them to a size which is of course somewhat smaller than the scant sizes of the rough dried material above indicated. In other words, a 6 by 2 joist would be that exact size when it came from the saw mill; after it had dried it would perhaps be 1⅓ inches by 5⅔ inches. The standard or finished size of a 6 inch joist is however 5⅔ inches, which is arrived at by running the stick through a planing machine and planing one edge so as to produce this dimension. When desired, one side of the joist is also planed, without extra charge, down to the standard size of 1⅓ inches. The standard size of all scantlings and joists is likewise ⅔ of an inch scant of the nominal green size.

All inch lumber is finished to ⅔ of an inch in thickness, and when the edges are planed the standard width is ⅔ inch scant of the nominal or green size. Flooring strips are ⅔ of an inch in thickness, and 2½, 3¼, and 5½ face measure exclusive of the tongue, and all of this material is tongued

and grooved. The nominal or green size of the flooring strip which produces a piece of flooring $\frac{1}{2}$ by $3\frac{1}{2}$ in width is 1 by 4.

Elaborate tests have been made by the United States Forest Products Laboratory, and by the Canadian Forest Service, to determine the strength of various woods, and these tests indicate that the Southern pines are from 33½ per cent. to 50 per cent. stronger than Canadian and Baltic yellow pine, red pine, and spruce, and that Oregon pine is 25 per cent. stronger than these Northern woods. I have also seen the results of special tests made in this country for various purposes, which confirm the general comparisons above given. It therefore appears that while a 6 by 2 Southern pine joist dried and finished to $1\frac{1}{2}$ by $5\frac{1}{2}$ would contain 12½ per cent. less cross section or cubic area than a 6 by 2 Baltic or Canadian red wood or white wood full-size joist, yet it would possess the equivalent strength of such a joist, and in fact something like 15 per cent. more strength.

The plan which I propose is that in your building plans of the future provision be made for the use of American woods in the American standard sizes as an alternative for the Baltic woods in their standard sizes. Heretofore it has been impossible to sell a 6 by 2 pitch pine or Southern pine joist in competition with the Baltic 6 by 2, for the reason that to produce a joist which would be 6 by 2 when dried it would be necessary for our mills to change their normal method of manufacture and to charge you with this expense as well as with the waste which would be involved in reducing to our standard sizes all of the low grade material which would be produced, and which we would have to keep at home.

I am convinced, however, that if our standard sizes are provided for, they can be sold in competition with the equivalent sizes from the Baltic and from Russia. The cost price of these standard sizes would be £2 a standard less than the cost of producing the special sizes for this market. There would be an infinitely greater stock of material from which to draw, and the material would be dried before shipment, which would save cargo space and freight charges. I am of the opinion, therefore, that these standard sizes of Southern pine could be delivered in these markets at £4 a standard less than the special sizes which this market has heretofore called for, and the supplies available would be larger despite the heavy demand which will be made upon us by Belgium, France, and other countries.

Unquestionably, Norway, Sweden, Finland and Russia are more favourably situated to supply your market and the other European markets than our Southern and Western producers, but if, as everyone anticipates, a shortage of raw materials will exist at the conclusion of the war, the most favourably situated woods will reflect their advantage of location by a marked increase in price. In fact they will move up to the point where they will meet the competition of less favourably situated supplies, and consequently the plan which I have suggested, and which will make available for this market thousands of standards of materials which have never before been available, will unquestionably exert a profound influence upon the tendency of timber prices.

There are numerous other American woods which are produced in large volume, and which have special advantages for special uses, such as cypress, sequoia, western red cedar, western white pine, and sugar pine, which are very little known in your market, and regarding which I am planning measures to bring their advantages to the attention of the timber trade and timber users, but I think it

best to confine this statement to the principal issue as outlined above, and to the two principal woods which are produced, and which will be available for export in the largest quantities.

The following is a précis of the discussion which followed Mr. Walker's remarks:—

Mr. JOHN W. SIMPSON [F.] inquired whether American timbers are officially standardised and marked by the Government, and pointed out that the information furnished by the United States of America should indicate the approximate cost and suitability for usage, etc., of Oregon pine *relatively* with those of the Baltic timber now in general use. The first pressing need would be a substitute for "deal," until now the common every-day material of the British builder. He did not himself anticipate serious difficulty in adopting American scantlings for use in this country, but we must know the classification of the woods proposed to be imported in comparison with the "deal" standard of general utility and price.

Oregon pine would not work up to a good painting surface, an important consideration in our damp climate. The architect, faced with a collection of specimen samples of American or Colonial woods, could not determine their practical value unless he were told, in general terms, "Where you would use deal or oak we should use this, that, or the other." As regards the hardwoods he did not expect to find the same difficulty of supply as with the soft, the demand for them being comparatively limited.

The desire of all British architects would be to encourage the imports of our American Allies rather than those of countries which had preferred neutrality in a conflict to determine whether civilisation or autocratic barbarism should dominate the world.

Mr. BERNARD DICKSEE [F.] referred to the well-known liability of Oregon pine to decay when the ends of the timbers are built into brickwork; a liability shared to a less degree by pitch-pine. Mr. Dicksee stated that he raised this point as it was not desirable that we should use a timber in a position for which it was not suitable, and he always advised when he found that Oregon was being used that the brickwork should not be built up close to the timber, but a half-inch air space should be left all round the end of the timber.

Mr. H. A. SATCHELL [F.] stated that Mr. Walker's information was much appreciated, and that it removed many misconceptions as to the adaptability of these woods to our requirements.

Perhaps the most significant information elicited from Mr. Walker was that America intended seriously to compete with European supplies after the war, and that, if we could not be persuaded to adopt their standards, they were prepared to adapt their supplies to our ideas.

It has long been a matter for regret that the English timber trade should have done so little to spread amongst architects exact detailed information as to its methods and supplies, as is evidenced by the negligible proportion of circulars or statistics about timber (apart, perhaps, from Colonial varieties) which reach them as compared with those dealing with other materials. The result has been to render it a very slow process to oust traditional descriptions and to bring specifications up to date. In view of this Mr. Walker's proposal to prepare and circularise a pamphlet embodying practical statistics and suggestions was particularly welcome, especially as he offered to submit a draft of it to a committee of the Institute before publication. How far Mr. Walker has at present succeeded in recommending his views to the conservative ideas of the trade he did not say, though he stated he had been in conference with them. The difficulties with the authorities responsible for Building By-laws in regard to size, etc., did not seem insuperable to those present, provided a wide demand could be established.

Mr. W. HENRY WHITE [F.] thought that what really is needed, if the American timber trade wish to encourage the use of American timber in the British Isles, is a pamphlet addressed to architects and builders upon the following points:

1. As to the various American timbers available, with their proper trade names, marks and brands, and their characteristics and fitness for various kinds of works (also showing the probable cost in normal times if possible).

2. A comparison with the Baltic timbers hitherto used.

3. Information should be given as to the strength, quality and behaviour of such scantlings available, and a tabulation of their safe loads, and an assurance that in normal times stocks would be available on the British markets in sufficient quantities. Also if certain "brands" or "marks" are specified that such marks or brands will carry full guarantees as to quality, fitness of purpose, strength and seasoning.

Mr. D. BARCLAY NIVEN [F.] remarked that it is evident that there will continue to be a great demand for timber for some time after the war, but before we can consider making use of the American timber which Mr. Walker described, a good deal of additional information is wanted. It is right that architects should lead in these matters, and he suggested that the Institute should set up a committee to deal with this important subject. In view of the reconstructive programme of the Government for which timber from many sources will be needed, we should at once give full attention to the consideration of all the new kinds available, and ascertain definitely for what purposes they are suitable. We should also like to have notes of the experience of American architects in dealing with these timbers, so that we may know what precautions to take, and avoid pitfalls.

Mr. H. D. SEARLES-WOOD [F.] said that the Oregon pine shipped to England was not cut until the order was given, and it was shipped green without any seasoning, and the voyage through the tropics which takes from five to six months caused the wood to sweat and stain, and the wood often arrived in a bad condition. The wood ought to be properly seasoned before shipment and graded under standard marks that should be a guarantee as to quality. We also wanted the scantlings in use in America, giving the span they were used for and the factor of safety used. It was well known that difficulties as to dry rot and other defects existed in American timber because the Inspection Department of the Associated Factory Mutual Fire Assurance Companies was an association for marking timber for factory and workshop construction, and their inspection should be applied to timber to be exported to England.

Mr. G. HORNBLOWER [F.] commented that after considerable experience of American timber he had found American Rock Maple a very valuable wood and most durable for the flooring of factories where capacity to resist hard wear and occasional moisture was essential. He was surprised to find how admirably the maple flooring had stood traffic during 18 years of factory life. As regards the differences between the American and Baltic thicknesses and scantlings, he thought we should have to accept the established American dimensions, and was of opinion that there would be no difficulty in practice, as one need merely specify, e.g., 1 inch nominal for American 1-inch flooring, it being understood that in practice one would be getting American standard flooring one inch in thickness less saw-cuts.

Mr. C. A. DAUBNEY [A.] pointed out that the proposals before the Conference involved very large commercial considerations. As the matter was worthy of the American Government's serious consideration, it seemed that the most effective method of fostering the proposed trade would be for that Government, in co-operation with the American merchants, to establish here a small exhibition and propaganda bureau. Samples of the materials and varieties could be kept here for reference by architects

and builders. The R.I.B.A. and other interested institutions could co-operate to make known the objects of the bureau. The British Government might be willing to assist, say, by lending the necessary funds.

The CHAIRMAN observed that in view of the certainty of the shortage of timber after the war it was very gratifying to know that there was a definite prospect of obtaining supplies from America. The matter was an extremely important one, and it would receive the careful and sympathetic consideration of the Institute. Mr. Walker had agreed that the preparation of a pamphlet on the lines indicated was necessary and desirable, and upon completion of this document it would be distributed among members of the R.I.B.A.

A hearty vote of thanks to Mr. Walker for the careful and lucid manner in which he had put his information before the members of the Institute was proposed and carried unanimously.

PERCIVAL M. FRASER, Hon. Secretary,
Practice Standing Committee.

CORRESPONDENCE.

Education of the Architect.

4 Raymond Buildings, Gray's Inn, W.C. 1
29th December 1917.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—In the October number of the JOURNAL Mr. Walter Millard called attention in a serious way to the criticisms of the Institute Examination made by Professor Pite and Professor Dickie, and in the current number Mr. Budden follows with definite criticism of the Testimonies of Study Committee.

Mr. Dickie is troubled, very justly, because the mere fact of an examination lying before the students prevents the schools from working to the greatest advantage, and Mr. Budden seems to feel that the examination would be improved by being definitely related to the work of the schools and conducted mainly by the professors. The examination is, however, a twofold one; the first part of it, the "Intermediate," bears directly on what is, or should be, taught in the schools—the history and characteristics of architecture and the broad facts of construction. As regards this part of it all criticism is disarmed by the fact that a student's school record is accepted in place of it; the schools pursue any course that commends itself to them and hold their own examinations; an External Examiner inspects the work on behalf of the Board, and all students who have acquitted themselves well are accepted without sitting for the Intermediate Examination.

The Final Examination is in a different category—it is a professional one, and the purpose of it is to test a man's qualifications for practising as an architect; one would wish that it might be conducted throughout by practising architects of the widest knowledge and experience. The designs made as Testimonies of Study leading up to it are a most valuable part of this examination, and to my mind to put them practically under the control of the school professors would be exactly the wrong thing to do. No one questions their capacity or judgment, but the point is that as

the designs form part of a professional examination they should be judged by practising architects as opposed to directors of schools.

Mr. Budden questions the soundness of the awards that are made, and differences of opinion in such matters are inevitable; but the committee is a strong one and comprises some of the best known men in the profession.

As Professor Pite points out, the examination is to be revised "after the war," and now is the time for the heads of schools to express their views on all matters connected with it. Let them meet and settle upon the points that, in their view, call for amendment and lay their conclusions before the Board. It is probably a bad thing that the Schools seem impelled to work with one eye on the Institute Examination, but as this is actually the case the examination should be so shaped as to exert the soundest possible influence on education.

Personally I do not agree with Mr. Budden's contention that the Board should consist to the extent of one half of Professors or Directors of Education. At present the proportion is eight to twenty-five, in addition to a number of Advisory Members, and even if the schools dealt with the entire training of the young architect this proportion would seem to be a sound one; but as a matter of fact the school training is only a beginning, and therefore it seems sound policy for the Board to consist mainly of those who have long experience of actual practice.

As for the matter of informing students of the reasons why designs are rejected, it would no doubt be useful, educationally, to do so; but it has been seriously considered and felt to be impracticable. It has often happened, however, that a student who felt aggrieved has been interviewed and the reasons for not accepting his design have been explained to him.

May I say in conclusion that to form the Board into a kind of administrative body for the schools would be an error. The individuality of the schools is a valuable asset and nothing should be done to impair it or to weaken the spirit of emulation that should exist between the various schools.—Yours faithfully,

ARTHUR KEEN [F.
Hon. Sec. Board of Architectural Education.]

The Comacine Builders.

Cambridge : 20th Dec. 1917.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Sir T. G. Jackson's reference to the "myth of the Comacine builders" in his review of Porter's fine work on Lombard Architecture,* met with criticism from Mr. Ravenscroft in your October issue. The suggestion of his own researches and the mention of his own book raised the hope that some firm ground might have been reached in the quagmire through which Freemason Archaeology flounders after Hittites, Solomon's Temple, Quatuor Coronati, and other

will-o'-the-wisps. I am bound to say that, reading Mr. Ravenscroft's treatise, I am disappointed. It abridges, but by no means makes more sound, the argument that Leader Scott so airily employs when in her "Cathedral Builders" she skips from conjecture to conviction—wondering if, and then concluding that, all architecture is Comacine. Waiting Mr. Ravenscroft's demonstration, the theory of an association of freemasonry, that permeated mediæval building, rests where it did some sixty years ago, when Mrs. Beecher Stowe heard Macaulay declaim that all the mediæval cathedrals were built simultaneously by travelling bodies of Freemasons, and drily remarked: "If it is not true, it ought to be."—Yours truly,

EDWARD S. PRIOR [F.]

"After the War."

256, West George Street, Glasgow : 9 Jan. 1918.
To the Editor, JOURNAL R.I.B.A.,—

SIR,—Mr. H. B. Creswell's letter in your December issue deals with a matter of most urgent importance to all practising architects, and it is to be hoped that it will receive the immediate and earnest attention of the Council and the profession generally.

Mr. Creswell is undoubtedly correct in arriving at the conclusion that the only way in which local authorities can be controlled in regard to their housing schemes is through the authority of the Local Government Board. This being so, the R.I.B.A. and Allied Societies should, without delay, set up the machinery necessary in their respective areas to bring pressure to bear upon Members of Parliament, and show once and for all that the profession cannot be ignored to its own and the country's detriment.

Such methods do not require to be justified, as, quite apart from the material interests of the profession, there is no other body so qualified as architects to handle the problems awaiting solution in regard to housing and other building schemes.

There is another matter, however, in my opinion of equal urgency, which Mr. Creswell might have referred to with advantage. I refer to the competition now existing between ferro-concrete specialists, constructional engineers and architects. To illustrate my point, it is not necessary to trace the history of the concrete specialist beyond stating that, originally, they made an effort to collaborate with architects, a policy which unfortunately has in the case of many firms been abandoned. Matters have got to such a serious pass in the West of Scotland that the constructional engineers are now considering the advisability of carrying out a direct advertising campaign in order to counteract the propaganda of the ferro-concrete specialists.

Such a policy can only have one effect so far as architects are concerned—viz., to further curtail the activities of the profession, and for those whose business is largely associated with commercial work the outlook is very serious.

* JOURNAL R.I.B.A., September 1917.

Many of my colleagues here are seriously disturbed regarding this matter, and as it is not their intention to accept this condition of things without protest, I think the matter should be ventilated in the JOURNAL without delay.—I am, yours faithfully,

GEO. A. BOSWELL, *Licentiate.*

St. Olave's, Tooley Street.

5th December 1917.

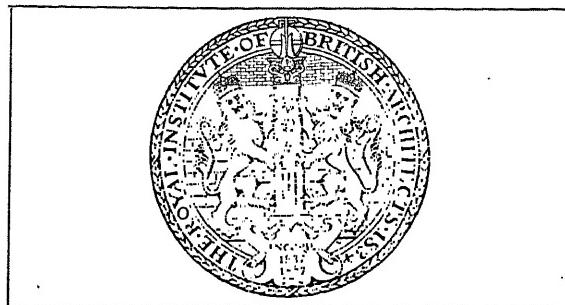
To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—A few days ago the *Daily Telegraph* afforded space for a two or three-line announcement that the Church of St. Olave's, Tooley Street, hard by London Bridge, was about to be pulled down. This would be a great loss. The south side of the river is not graced with many buildings which give it distinction, and the removal of this church would be as deplorable almost as any one of the City churches which we have lost. St. Olave's, built of Portland stone, was designed by Henry Flitcroft, who also built St. Giles's-in-the-Fields. I know of no other specimens of his work. What shall we see in its place? Probably a structure for trade purposes, as has been the case with the sites of some of Wren's City churches; and not only with churches, but with other old buildings which have been destroyed in the metropolis generally, such as Crosby Hall, Newgate Prison, old St. Paul's Schools, Wren's highly interesting and characteristic Old College of Physicians, once in Warwick Lane, which has made way for the Cutlers' Hall, a building full of architectural trivialities. Take, again, Cockerell's scholarly Hanover Chapel, in Regent Street, which has been demolished and a big and blatant boot and shoe palace erected in its place. Let us hope that the societies which exist for the preservation of buildings of interest will, with the backing of Acts of Parliament, bestir themselves to save St. Olave's.—Yours faithfully,

R. W. COLLIER [F.]

Books and Pamphlets received.

- The Art of Building in Masonry. By T. Littlejohns, R.B.A., and L. Richmond, M.R.I.A.S. With a Foreword by Sir Isaac Ashbee. 40. Lond. 1917. 21s. net. [Essex Ho. Walk, S.W.; B. T. Batsford, Ltd., 94 High Holborn, W.C.1.]
- Bombay Public Works Department, Technical Paper No. 6: Reinforced Concrete Roof Construction for Use with Ceiling Tiles. By J. M. Mackay, A.M.I.C.E., Executive Engineer, Bombay P.W.D. Archaeological Survey of India, Vol. xxxvii. Bijapur and its Architecture: Part I, Bijapur with a Historical Outline of the Adil Shaki Dynasty. B. T. Batsford, Ltd., V.I.A.S. 40. Bombay 1916. [Government of Mysore.]
- A Study in Craftsmanship during the Renaissance. By F. E. Howard and F. H. Crossley. Sm. 40. Lond. 1917. 30s. net. [B. T. Batsford, Ltd., 94 High Holborn, W.C.1.]
- Warming Buildings by Hot Water. A Practical Treatise. By Frederick W. Dye, M.R.I. 2nd ed. revised. 80. Lond. 1917. 10s. [E. & F. N. Spon, 57 Haymarket.]
- Building Construction Drawing. By Richard B. Eaton. Part III. 28 plates. 40. Lond. 1917. 3s. net. [E. & F. N. Spon, 57 Haymarket.]
- Hints on Architectural Draughtsmanship. By G. W. Tuxford Hallatt. 5th ed. revised. Sm. 80. Lond. 1917. [E. & F. N. Spon, 57 Haymarket.]



9 CONDUIT STREET, LONDON, W., 14th January 1918.

The R.I.B.A. Record of Honour: Fifty-first List.

Killed in action.

DAVISON, W. RUPERT, Middlesex Regiment. Killed in action on 20th November 1917.

Rupert Davison, born in 1881, son of Mr. T. Raffles Davison [*Hon. A.*] received his architectural training in the office of Mr. W. Baldwin, of Lincoln's Inn Fields. Specialising in housing and cottage design, in which he did much sound work, he was awarded by Sir Edwin Lutyens third premium in the *Daily Mail* Cottage Competition, and designed a cottage which was the central feature in the Ideal Homes Exhibition at Olympia. In conjunction with Messrs. Alfred Cox and Trimmell he designed and carried out the Wakefield Public Library, won in competition. He was a regular exhibitor at the Royal Academy and his work was frequently illustrated. In the war he had done valuable work in railway engineering and had been formally transferred to the R.E., when he was suddenly recalled to his old regiment at the Front where he met his death.

Military Awards.

MAULE, Captain HENRY P. G., Hon. Artillery Company, M.C. [*F.*], who was specially mentioned in Sir D. Haig's dispatch of 7th November for distinguished and gallant services and devotion to duty, has been awarded the D.S.O.

WICKS, Captain HERBERT GRAHAM, R.F.A. [*Student*]. Awarded the Military Cross.

Captain Wicks, on his own initiative, went to an exploding ammunition dump, brought in three wounded men and directed others to safety. During the whole two hours in which he was thus engaged the dump was under heavy fire and shells were exploding in all directions.

McDERMOTT, Lieut. (Acting Captain) WALTER KINGSLY, 6th Buffs (late of E. Kent Regt.). Mentioned in Dispatches (*Times*, 19th December).

Promotions and Appointments.

Lieut. R. V. T. Sewell, R.E. [*Licentiate*], promoted Captain and Adjutant to C.R.E., 3rd Army Troops.

2nd Lieut. R. Norman MacKellar [*A.*], promoted Lieut., R.G.A.

2nd Lieut. H. W. Lockton [*Licentiate*], Royal Engineers, promoted Lieutenant.

Lee-Cpl. B. R. Gibbon [*A.*], Highland Light Infantry, gazetted 2nd Lieut. Northumberland Fusiliers.

Mr. Robert W. Carden [*A.*], granted a commission as Lieutenant, R.E.

Mr. Arthur F. Wickenden [*A.*], promoted Lieutenant, R.N.V.R.

Greetings to Members on Service.

Some few days before Christmas a Card of Greeting was addressed from the Institute to every member and Student of the Institute serving with the Forces, the card being sent out to the last known address. The Greeting read as follows :

WITH KINDLIEST THOUGHTS
AND GREETINGS FROM THE
PRESIDENT AND COUNCIL OF
THE ROYAL INSTITUTE OF
BRITISH ARCHITECTS TO ALL
MEMBERS & STUDENTS R.I.B.A.
NOW SERVING WITH HIS
MAJESTY'S FORCES.

A lieutenant serving in France, responding to the Greeting, says : " It is very good and pleasant to receive such things out here, but to know that we are remembered by our colleagues at home is the most delightful of all."

The British Museum.

The Institute joined in the protest against the commandeering of the British Museum for the purposes of the Air Board, and the following letter was addressed by the President to every member of the War Cabinet :

" On behalf of the Royal Institute of British Architects I beg to submit that the taking over of the British Museum for the use of the Air Ministry is greatly to be deprecated, unless under pressure of the most urgent national necessity.

" The use of the buildings for the purposes contemplated would no doubt involve alterations, which must considerably increase the risk of fire ; but the gravest objection to the proposal is that the interference with the legitimate use of the Museum for an indefinite period must be most prejudicial to the higher interests of education and art."

A reply has been received from the War Cabinet stating that it has been found possible to avoid taking over the Museum as intended.

The R.I.B.A. and the Allied Societies : A Meeting at Manchester.

The President and other representatives of the Institute and of the Allied Societies were the guests of the Manchester Society of Architects on the occasion of a joint Committee meeting held at Manchester on the 12th of last month. The purpose of the Committee will appear in the report to be issued later, but members present, and especially those from London, wish to take the first opportunity of expressing publicly their warm appreciation of the exceedingly kind and hospitable reception accorded them by the President and members of the Manchester Society. The gathering at the Society's very comfortable headquarters at St. Mary's Parsonage was an exceptionally representative one, nearly all the Allied Societies being represented, and mostly by their Presidents.

The latter were in conference early in the day, the London members joined them at about 3.30 p.m., and the business part of the programme lasted till nearly 7. The company then adjourned to the Midland Hotel as guests at the Manchester Society's Annual Dinner, which had been arranged specially for that evening in honour of the visitors. The President, Mr. J. B. Gass, who presided, gave in a very felicitous speech the toast of the evening, " The Royal Institute of British Architects." The response showed how peculiarly representative the gathering was, Mr. Hare, Mr. Waterhouse, Mr. Searles-Wood and Mr. Slater responding for England ; Mr. J. B. Dunn (of Edinburgh) for Scotland ; Mr. Kaye Parry (President of the Institute of Ireland) for Ireland ; and Mr. Cook Rees (President of the South Wales Institute) for Wales. The evening —indeed, the whole visit—was a very agreeable one and the feeling was shared by all that it had been a very wise move indeed to hold the meeting at one of the Allied centres. Apart from the special business of the meeting, the occasion afforded opportunity for the clearing up of possible misunderstandings and led to a valuable interchange of ideas and experiences which will, it is hoped, bear fruit in a mutual broadening of views and sympathies and in a knitting together of the parent body with its widely scattered members, the one aim animating all being to work together in unison for the advancement of architecture and the well-being of the profession.

On View at the Institute.

The walls of the Institute look particularly forlorn now that the pictures have been removed into a place of safety, and members will therefore be the more grateful to Mr. A. E. Henderson, R.B.A., F.S.A. [Licentiate], for the loan of a fine specimen of his work which was on view at the recent annual exhibition of the Royal Society of British Artists in Suffolk Street. The picture has been hung in the entrance hall at 9, Conduit Street. The work is entitled "Byzantine Splendour," and represents the Empress Theodora, wife of Justinian, leaving the latter's palace at Constantinople to go by barge to the summer palace on one of the islands in the Sea of Marmora. Full of fine Byzantine imaginings and rich in Eastern colourings, the work both in its conception and execution is altogether admirable, and Mr. Henderson is to be sincerely congratulated upon his achievement. It is evident that he has travelled much in the East, and he has imparted to his work the true Oriental spirit. An interesting description of the picture from the painter's own pen will be found in the November issue of the JOURNAL, page 13.

It is interesting to note that Mr. Henderson won the Owen Jones Studentship in 1897 with a series of masterly studies of interiors and decorative details of famous buildings at Ravenna, Monreale, San Lorenzo, Palermo, Venice, Florence, etc. The Library has a photographic reproduction of the entire set. He acted as architect to the excavations of Ephesus, directed

by Mr. D. G. Hogarth for the Trustees of the British Museum in 1904-5, and described by Mr. Henderson in a Paper read before the Institute and published with numerous illustrations in the JOURNAL for 5th December 1908. Members will recall his two fine drawings which in pre-raid days hung near the entrance to the Common Room, illustrating the author's ideas for the restoration of the Temple of Diana at Ephesus, the Creesus structure (seventh century B.C.) and the Hellenistic (fourth century B.C.). For some time Mr. Henderson was the able acting Curator of the Geffery Museum in Kingsland Road, and the excellent arrangement of the exhibits there is to a large extent due to him.

GEORGE HUBBARD [F.]

Restrictions on Building after the War.

Space admits of but a very brief précis of the discussion on Mr. Wills's resolution brought forward at the Business Meeting on Monday, the 7th. The salient points—the resolution, the amendments proposed, the decision of the meeting, and the voting—are recorded in the Minutes [see p. 71], and need not be repeated here. Mr. Mark Judge, it will be seen, withdrew the amendment he had given notice of on Mr. Wills recasting his resolution, which as originally framed was open to a construction he did not intend.

Mr. WILLS, in moving his resolution, dealt with two subjects which he said might be taken to be correlated—viz., the questions of housing and of control of building after the war. He contended that the urgency of the housing question had been greatly exaggerated. The authorities seemed to be unduly influenced by popular agitation and were disposed to initiate new departures without sufficiently sifting evidence. The present demand for housing rested partly on a foundation of sand. The amount and distribution of housing depended on the nature and extent of trade and of agriculture. Trade would be enormously affected by the conditions of peace, which were wholly uncertain. Much as it was desired to see more land under cultivation it remained to be seen whether sufficient inducements could be offered to the farming industry to bring about the desired result. Again, there were no data to go upon as to the numbers who would emigrate after the war. In face of these uncertain factors it was impossible to arrive at reliable statistics on the subject of housing. Till the last eight or nine years private enterprise had been responsible for the provision of about 97 per cent. of the accommodation required. Largely in consequence of the Finance Act of 1909 the amount of housing was first halved and then still further reduced. The Act cost more to administer than it produced, and the Institute ought to add its voice to those who have urged the Government to amend it so that private enterprise may no longer be discouraged. Reforms were also possible in our system of rating which would relieve building of all classes—and especially housing—of a grievous burden, and make it possible to build for rents which could be paid by the worker and do away with the necessity for State subsidies. For the foregoing reasons he was opposed to the Government maintaining control of building after the war. If great schemes of State-aided housing were to be carried out the authorities concerned would be in a position to give large orders for materials which would place them in a favoured position as compared with private individuals and they would secure precedence of supply. A last and selfish

consideration was: "What are architects going to get out of housing?" Remarkably little in his opinion, seeing that every authority in the country had its surveyor, engineer, or architect, and that under whatever name he was called the bulk of the electors' representatives consider he is an authority on matters of building and the planning and construction of streets. Could it be supposed that many of these authorities would obtain outside help for which they would have to pay fees? They could not expect any such thing; neither was it expedient that architects should by agitation in the matter provoke bad feeling, especially as they were bound to come out under-dogs in the end.

Mr. JOHN SLATER [F.] said he would second the resolution, but on slightly different grounds. Architects, during the last three years, had been suffering from a condition of affairs which had reduced some of them to penury and had sadly impoverished a great many others. They had, however, borne all without complaint, feeling that it was their duty to do so in the interests of the country. But if further restrictions were to be imposed after the war, they must reconsider their position. He did not think it possible to appoint a body of individuals who would be so competent, and so impartial, as to be able to say, without inflicting grave injustice, that certain buildings should be proceeded with and that others should not. The question did not affect architects alone; it affected the whole community. It was hoped that there would be founded here a number of industries which had been a monopoly of Germany, and those industries would want buildings to accommodate them. Such buildings ought to be allowed to be put up with the least possible delay after the war. Again, municipalities and other public bodies had had their large buildings stopped for years, which meant to the ratepayers a considerable increase in expenditure. No obstacle ought to be placed in the way of those buildings being proceeded with. Individual enterprises would also want buildings to enable them to increase their businesses. It had been hinted that the chief problem was the housing of the working classes. But what was the use of having a large housing scheme if they starved the working classes which gave people employment? Education was a question affecting architects alone; a great principle was involved. He had no wish to oppose the Government; he wanted to convince them. In the majority of cases artificial Acts which resulted badly were promoted by people who were ignorant of the circumstances of the case. It was most desirable that the Government and the officials concerned should know the circumstances. He seconded the resolution on national and not on selfish grounds only.

Mr. R. J. ANGEL [F.] said that if official architecture were urged as an argument in favour of the resolution, he should vote against it. His Majesty's Office of Works were very largely concerned in the erection of dwellings for the working classes, and some of them were most excellent buildings.

Mr. WM. WOODWARD [F.] said that it had been expedient and right for the Government to have control over building during the war, but that such control should continue after the war would be unwise and highly inexpedient. With regard to housing, he gathered that it was the intention of the authorities to set up, or at any rate the authorities were being urged to set up, an entirely new Department, which meant probably standardisation of plans and the employment of many hundreds of men in this particular Department for the designing of houses for the working classes. That Department would be fatal to the proper execution of cottages in different parts of the Kingdom where the materials appertaining to those localities must be brought into play in the design and erection of the buildings. He should be very sorry if the Institute were to become party to the formation of a Government Department which would have under its control the building of half a million houses. Those

houses ought to be left to private enterprise, as before, instead of the Government making huge grants for them. Reading the speeches at the meetings which had taken place on this subject, it would be found that the main object was the building of houses at the expense of the upper and middle classes, in order that the so-called working classes should have their cottages at less than their proper value. He supported most cordially the object Mr. Wills had in view, and he hoped the Institute would send a strong protest to the Government against the continuance of the restrictions.

Professor S. D. ADSHEAD [F.] said he could not support the resolution. If taken literally it was too ambiguous, and if not taken literally it was too crude. There was no doubt that the housing question was largely at the root of the matter. But the resolution did not refer to housing : it only suggested it in a very ambiguous way. He did not think that the Institute, as a body of architects, was competent to decide as to whether houses were wanted or not. It was generally recognised that some half-million houses would be wanted after the war; also that 75,000 houses had been built annually previous to the war, of which about 95 per cent. had been built by private enterprise. It was also well known that when there had been a shortage of houses owing to a rise in the cost of materials, people had crowded into houses the rents of which had not been raised proportionately with the cost of materials. If we did not have an abnormal number of houses immediately after the war, we should have extraordinary and abnormal crowding, and some extraordinary method must be adopted to cope with it. He was strongly of opinion that the Government ought to assist housing. Even if they did assist, they would never be able to build anything like the number of houses that would be wanted at once. There would still be plenty of room for the private owner. There was, of course, the difficulty that if the Government granted funds for housing, the private owner would have a greater difficulty in competing. He could, however, always become a contractor ; for there would be an enormous amount of contracting to be done. As regards the architect, everything pointed to the fact that he would have a far larger share in these housing schemes than he had ever had before.

Mr. WILLS, replying to the President, said that his resolution meant that there should be no restriction on building at all. The threatened restriction was due mainly to the fact that the Government considered a very big programme necessary, and they considered that unless other forms of building were restricted, there would not be enough materials or enough labour to carry that programme out.

Mr. W. HENRY WHITE [F.] said that the construction of cottages for the working classes might not affect architects very materially, because it would probably drift into a comparatively few hands, and be done under the different local authorities. It was the cessation of all other work that affected them ; and that, he thought, was what Mr. Wills especially meant. After peace was restored the first thing to be considered was to produce work for the whole nation. That for a certain time after peace the whole body of the building trade should be employed in creating homes for the working people seemed an extraordinary position to take up. The great thing would be to try to encourage trade to promote all the industries that were concerned. Unless we got a free hand and fair competition, we should be checked, and checked just at the wrong stage. After the war people must be encouraged to put their money into bricks and mortar again as they used to do before the Finance Act. But this cannot be done if we have a Government Department set up to control the general building trade. We ought to put it forward in precise language that it is necessary to encourage investment in property in England. If every man had his freehold, he would be a stronger patriot, and that was the point which needed to be put very clearly

before the Government. He would like to see the resolution altered : by some wording to the effect that the private enterprise should be encouraged. [UBBARD, F.S.A. [F.], said that if the Government were to embark on the provision of working-class dwellings and let them at rents which did not pay a stop would be put to private enterprise altogether.

Mr. H. B. CRESWELL [F.] said he was very glad to support the resolution, but was disappointed that it did not go further. In attacking what was chiefly a principle of finance and a political question we should not go very far. We did not tackle these subjects on a proper plan. Since the war we had been talking about the psychological value of education. This was altogether foreign to the times. We had to wake up, to do things, drastically and strongly and sincerely. The Institute was greatly handicapped by the circumstance that the members of the Council had often to act contrary to their own interests. If we were going to approach Government organisations, it must be done without any feeling of disadvantage to the members of Council who had to force these things on the Government's attention. The proposal that the Institute should approach the Government organisation concerned was not sufficiently drastic to be effective. He should like to see many other matters grouped with Mr. Wills's resolution. They were aware that the Government were going to undertake housing and educational schemes on a large scale. It was no good attempting to interfere with that. But what they could do was to see that the position of architects was secure in those enterprises. He would therefore like to see something in the form of a manifesto which embraced all these questions. That manifesto should be signed and supported by all the architectural bodies throughout the country, and it should clearly state the interests of architecture, more than the interests of architects, but still keeping that also to the fore, so that the authorities might be made fully aware of what they were ignorant. They should also be made aware—which was much more important—that they had the weight and the impulse of the architectural profession behind the reference to them. That, by reason of its sheer bulk, would carry weight and enforce attention.

Mr. ANGEL suggested that Chambers of Commerce should be one of the "other bodies" referred to in the resolution ; they would carry great weight if they were associated with it.

Mr. D. B. NIVEN [F.] said he agreed with Mr. Wills that the Government should not give one class of building preference over others after the war. Architects should get their opportunity, and the building trades should get theirs to carry on the work, and as nearly as possible under normal conditions.

Mr. BERNARD DICKSEE [F.] said that the main issue was that the Government, in the interests of the country, had found it necessary to impose restrictions because of the war. Those restrictions were affecting architects, the building trades, and others concerned to a far greater extent than any other business. Architects had been harder hit than any other body of men in the country. They had submitted to those restrictions without complaint because they were necessary to enable the war to be won. But there was no reason for continuing those restrictions after the war. He heartily supported Mr. Wills, but thought he had not gone quite far enough. He referred to the restrictions on building, but he should group with it allied trades, because there were other trades which were mixed up with building, but would not be included where building only was mentioned. It ought to be made clear that the war restrictions as such should be removed at the earliest possible moment. With regard to the co-operation of other bodies, he was sure the District Surveyors, of whom he had the honour to be President, would co-operate in any action that might be settled upon.

Mr. H. V. LANCHESTER [F.] pointed out that there must

be demobilisation of material as well as of men, that the Government must take a hand at restoring things to a normal state, just as they must take a hand in restoring men to their normal occupations. The whole question was of greater complexity than many seemed to think. He agreed with everything that had been said with regard to the importance of the Institute being properly represented in any conferences which might arise on this question. But he strongly deprecated at the present moment their doing anything which would tie their hands in any representations they were making to the Government. It was too soon yet to forward a definite resolution; it would place them in a false position. A very appropriate Joint Committee had been formed, and he was sure the President would sympathetically adopt any suggestions for its enlargement by co-opting members from other bodies interested in this question. He suggested that that Committee should fully consider the difficulties arising from the world shortage of building materials and report to a joint meeting as soon as it was in a position to do so.

Mr. C. T. RUTHEN [F.] referring to Mr. Wills's statement that 97 per cent. of the houses required were built by private enterprise, suggested that that was not quite accurate. If he had stated that 97 per cent. of the houses erected were erected by private enterprise he would have been perhaps more correct. In South Wales, where he came from, some years before the war there was a shortage of 60,000 workmen's houses. The importance of getting back trade after the war had been mentioned, but they would never get back trade in South Wales unless the workmen were housed. South Wales was a very difficult area; it was almost a hotbed of disputes. A year or so ago the "Industrial Unrest Commission" in taking evidence found that the lack of houses for the working classes was the main cause of industrial unrest. There were in South Wales hundreds of houses where the beds were never cold; they were used for twenty-four hours every day. It was all very well to talk about building factories, but it was no good building factories unless there were men to work in them, and they would not get the men if there was a revolution. He felt sure that housing must be put before everything. Unless the Government took in hand this matter very strongly and handled it very carefully there would certainly be, in some areas, industrial revolution. Whatever may have been the reason, private enterprise had been unable to tackle the job. They might take it from him that the Government would see that the houses were provided first.

Mr. H. H. WIGGLESWORTH [F.] said it was impossible for the normal to be resumed immediately after the war. For one thing there would be no shipping to spare to carry the material. Government control there must be, much as we disliked it.

Sir ASTON WEBB, K.C.V.O., C.B., R.A. [F.] said the subject was one that it was imperative the Institute should take a lead in and that the world should know the view that the Institute took. Architects, for three and a half years, had suffered willingly for the great cause. During all that time building had been practically stopped. And no kinder hand could have been chosen to stop it than the hand of the late President of the Institute. He had done it in a way that could not be excelled for tact, kindness and sympathy. But while they had suffered so much when there was reason for it they were not disposed, when the reason was gone, to suffer in the same way in the future. Therefore some such course should be taken as that suggested by Mr. Wills. There were rumours that there would be restrictions of very serious importance. That made them nervous and irritable. It was of the first importance that the building trade, and the architects at the head of it, should know what was in the minds of the authorities. It was their business, as a public institution, to put before the authorities, as clearly as possible, that they considered it extremely unfair that certain lines of building work should be given preference over others. He

was sure the authorities would be glad to know the views of the Institute on the question. It was not easy to say there should be no control; but they wanted to know how far it was necessary. The Government should be in possession of the fact that the Institute was strongly opposed to it, as it would be unjust, not only to architects, but to builders and to the public. A large number of commercial firms had had to postpone the extension of their works to meet German competition, and those firms certainly ought to be able to proceed after the war with enlargements of their works so as to be in a position to compete with Germans. All these things ought to be argued and talked over before the Reconstruction Committee or other Department of the Government.

Mr. J. S. GIBSON [F.] said that the question had been fogged by the introduction of social, political and economic questions, which for present purposes might easily have been left out of the matter. It was obvious, as had been pointed out with regard to the districts of South Wales, that the great want of houses for the working classes should be supplied before workmen could be employed in factories. But the Institute need not touch on that subject. The working man had quite sufficient political organisations to put his views before the Government. All that architects were concerned with was that these houses should be worthy of the best skill of the architects of the day, to make them comfortable and convenient residences for the people. And the two things could run very well together. When Mr. Adshead stated that, in his view, the Government should practically subsidise housing of the working classes, and that the private contractor could compete against them, he apparently did not see the absurdity of his argument, for it was not possible for any private builder or contractor to compete against a Government granting subsidies. That, however, was not the point. The point they wished to impress upon the Government was that during the war, for a proper purpose, architects, and their clients, had suffered restrictions upon building, and they were determined, if they could possibly effect it, that those restrictions should be removed the moment peace was declared. He wanted to see, after the war, as far as it was humanly possible, the old free trade in building. If the Government embarked upon schemes for granting subsidies for special classes they were in a favourable position to buy at any price—because it was the money of the public they were buying with—all the building materials they wanted, and the private builder could only buy what was left, if by the good grace of the Government he could get that. But surely commercial people who wished to extend their factories, buildings which meant the production of increased wealth to the community, were not to be at the mercy of some Government Department which said, "Because your building is in Oxford Street you will not get leave to erect, but if your building is in the Brompton Road you may." He fervently hoped that the Institute would lay before the Government, in the strongest possible manner, its firm conviction that when the war ceased all the present restrictions must be removed and the building trade be restored to its previous open condition.

Mr. ARTHUR KEEN [F.] said he did not think the meeting would be wise in adopting the resolution as it stood. He thought they should first ascertain whether the Government proposed to continue the restrictions, and, if that were their intention, to ascertain their reason for it. To pass such a resolution without knowing more of the purpose of the Government would be a mistake.

Mr. WILLS observed that when an official of the Ministry of Reconstruction, in a conversation at his own office, presupposed that a state of control over building would be continued after the war, it might be taken for granted that such a restriction was in the mind of the Government. He was speaking with good authority when he said that recently a small meeting was held at which it was stated that the Government considered that not only the building

trade but all the other trades of the country should be placed under control after the war. Assuming, however, that his information was not absolutely correct, the Government had got a perfect answer. It could tell them at once that there was no ground for their fears.

Mr. BERNARD DICKSEE pointed out that the Ministry of Reconstruction had already appointed a Committee, consisting of Mr. James Carmichael, Sir John Walters, Mr. Shirley Benn, Mr. Storrs, and Mr. Walker Smith, to consider this very question of restrictions on building, etc., after the war, and one of the items of the reference ran, "In the event of the supply of material or labour being insufficient to fulfil the total building demand, to consider the principles and method by which the priority of various claims should be settled." Priority was what the architect was faced with in the presence of this war, and the restrictions which have been necessary. It was an easy matter, when restrictions were once imposed, to keep them on, instead of instituting different ones.

THE PRESIDENT said he felt some diffidence in speaking on the subject because he was at the present moment engaged in connection with these very restrictions on building: he was a member of the Department. He entirely agreed with everything that had been said as to the objection against restriction. But nobody knew at the present time what were going to be the conditions, either as regards labour or material, after the war. The Government itself did not know whether restrictions would be necessary or not. They were, to a great extent, working in the dark. But they were trying to provide for contingencies. That being the case, it seemed to him that the Institute ought not to commit itself to anything so definite as this resolution. He was speaking now not as President, but as an ordinary Member. He should have felt much more comfortable about the resolution if the wording were to run: "To take steps to represent to the Government that the present restrictions on building should be entirely removed at the earliest possible moment after the signature of peace."

Mr. WOODWARD: "The earliest possible moment" may be twenty years after.

THE PRESIDENT: The conditions may possibly be such on the conclusion of peace that, as there may not be enough material to go round, somebody must have the preference, and it would devolve upon somebody to say who was to have it. Should the resolution be carried he assumed that it would be the intention of the meeting that it should go to the Conference which was now sitting.

Mr. WOODWARD: The meeting should be clear that, although we agree that this resolution should be put before this Conference, it is certainly with the idea that ultimately it shall go from that Conference to the Government as the resolution of the Institute. If it is not agreed to by the Conference, of course it would come back here.

Mr. A. R. JEMMETT [F.] said if the wording of the resolution could be altered as the President suggested, he would support it with pleasure.

Mr. HERBERT SHEPHERD [A.] said that Mr. Wills's resolution put on the Council the duty of taking steps to represent this matter to the Government. As a member of the Council, he should feel it to be their duty to represent to the Government, and to the Government alone, the resolution carried at this meeting.

Mr. WILLS: In conjunction with other bodies.

Mr. ARTHUR CROW [F.] said he did not think the resolution should go forward in its present form after the expressions of opinion against it. Many members of the Institute took the view that the Government should be supported in their control, especially with regard to a preference for building for housing purposes. He thought the reference to the Committee appointed by the Ministry of Reconstruction was capable of a much wider interpretation than had been put upon it. There were certain essential industries in regard to which we had been in the past dependent upon enemy countries, but which were now

to be our own national concern. These industries required factories, and it would be wise to concentrate on these quite as much as on working-class dwellings. The Government might consider that these matters should have priority over the building of mansions for the rich.

The speaker concluded by moving an amendment in the terms suggested by the President. The result and the subsequent proceedings are sufficiently recorded in the Minutes [page 71].

The Rebuilding of London after the Great Fire.

Arrangements have been made for the reading of a paper on the Rebuilding of London after the Great Fire, by Mr. Walter G. Bell, at the General Meeting of the Institute on the 4th March. Mr. Bell, who is a brother of Mr. R. Anning Bell, has been working for some years on a detailed history of the Fire of 1666, which will possibly be published before the end of the present year. It will be recalled that there is no proper history of the Great Fire. Mr. Bell's material on the rebuilding is entirely new, having been collected by himself with great labour from the Minutes of the City Corporation and Craft Guilds, Privy Council, Surveyors' returns, building accounts (Wren's and others), memoirs and letters, substantially all of which are still in manuscript. The conclusions based upon them are that the struggle to restore the city was much more severe and the time taken in rebuilding much longer than the inscriptions on the Monument and popular belief would lead one to suppose. Mr. Bell's Paper will be illustrated by slides showing a survey of the ruins, model plans for the new city, types of houses raised under the Rebuilding Act, etc. The meeting commences at 4 p.m., and members are requested to invite to the meeting any of their friends interested in the subject.

Elmes Testimonial Scholarship.

Mr. Hastwell Grayson [F.], one of the Trustees of the Elmes Testimonial Fund, writes:—When Harvey Lonsdale Elmes died a fund was raised, the income to go to the widow and son and the capital to found a scholarship in Architecture and the Fine Arts. The son survived until last year. The Trustees have now drawn up rules in accordance with the Trust Deed. The Scholarship will be of the annual value of £30, and is limited to candidates under twenty-three years of age, who have attended various specified schools for boys and girls in Liverpool. The entrance examination will be held by the Professor of Architecture at Liverpool University, the first examination in next July. The successful candidate will be required either to enter the University of Liverpool and to follow the course of study qualifying for the degree of Bachelor of Architecture or to follow an approved course of study in some other institution of higher education.

To Members Serving in Egypt.

Mr. Robert Williams [F.] will be glad if any members of the architectural profession serving with the Forces in Egypt at any time will communicate with him at St. David's Buildings, Charah Emad-el-Din, Cairo.

MINUTES.

At a General Meeting (Business) of the Session 1917-18, held Monday, 7th January, 1918, at 3.30 p.m.—Present: Mr. Henry T. Hare, President, in the Chair; 27 Fellows (including 8 members of the Council), 7 Associates (including 1 member of the Council), and 1 Licentiate—the Minutes of the Meeting held 5th November having been taken as read were signed as correct.

The President announced that news had been received that the following Members and Students had fallen in the war: Lance-Corporal Beaumont E. Atkinson, Middlesex Regiment, *Licentiate*; Lieutenant Arthur Haines Tucker, Royal Sussex Regiment, *Licentiate*; Lieutenant[†] (Acting Captain) Henry Carleton Brundle, Lancs Fusiliers, *Probationer*; Sergeant Allen Lionel Freaker, Artists' Rifles, *Student*; Captain George Luard Alexander, Post Office Rifles (attached Staff), *Associate*; Captain Charles Gascoyne, Sherwood Foresters, *Owen Jones Student* 1906; Captain John Beedel Matthews, M.C., North Staffs Regiment, *Student*; Reginald Fowler, *Associate*.

Upon the motion of the President it was Resolved that the deepest regrets of the Institute for the loss of these members be entered on the Minutes, and that a vote of sympathy and condolence be passed to their near relatives.

It was also Resolved that a message of the Institute's sincerest sympathy be conveyed to Mr. Arthur Wells [F.], of Hastings, who had lost two sons in the war—namely, 2nd Lieutenant Ewart Linley Wells, Wellington N.Z. Infantry; and Lieutenant Ronald Graham Wells, Royal Sussex Regiment; and to Mr. T. Raffles Davison [Hon. A.], whose son, Mr. W. Rupert Davison, of the Middlesex Regiment, was recently killed in action.

The decease was also announced of Charles Herbert Shoppee, elected Associate 1874, Fellow 1889; Walter Scott, elected Associate 1883; and Frederick Montagu Gratton, elected Associate 1881, Fellow 1893, placed on Retired Fellows' List 1912.

Mr. Charles Tamlin Ruthen, attending for the first time since his election as Licentiate, was formally admitted by the President.

The following were elected by show of hands under By-law 10:

AS FELLOWS (10).

CRAVENFIELD : SYDNEY WHITE [*Associate*, 1892].

*HARVEY : WILLIAM ALEXANDER [*Licentiate*], Birmingham.

*JONES : FRANCIS [*Licentiate*], Manchester.

*MORRISH : WILLIAM JAMES MARMADUKE [*Licentiate*], Dorset.

NICOL : GEORGE SALWAY [*Associate*, 1903], Birmingham.

NICOL : JOHN COULSON [*Associate*, 1887], Birmingham.

*POWELL : ROBERT SIDNEY [*Licentiate*].

*RUTHEN : CHARLES TAMLIN [*Licentiate*], Swansea.

SMALLMAN : HENRY RICHARD GEORGE STRONG [*Associate*, 1905].

TICKLE : ARTHUR GEORGE WARNHAM [*Associate*, 1911], Hong Kong.

AS ASSOCIATES (5).

BEESTON : HUMPHREY ALBERT [*Student*, 1904], Egypt.

COATES : HAROLD FENWICK [*Special Examination*], Melbourne.

HENRIQUES : ELIAS COSMAS [*Special Examination*], Bombay.

HOPE : ARCHIBALD CAMPBELL [*Special Examination*], Ontario.

RAYSON : THOMAS [*Special Examination*].

It was announced that as a result of the Statutory Examination held by the Institute in October, the Council had granted a Certificate of Competency to act as a District Surveyor in London to Mr. Harry C. H. of 26 Bromley Road, Ealing, W.

* These candidates have passed the Examination qualifying for *Graduate Surveyor*.

Upon the motion of the President, seconded by Mr. George Hubbard, F.S.A. [F.], it was Resolved, That the heartiest congratulations of the Institute be offered to Sir Edwin Lutyens, A.R.A. [F.], upon the knighthood which had been recently conferred upon him.

Mr. Herbert W. Wills [F.] moved, in accordance with notice, "That, in view of the extremely important interests involved, this Institute should take action in conjunction with other bodies to represent to the Government their strong objection to the continuance of any system of control over building after the War."

The motion was seconded by Mr. John Slater [F.].

Letters in support of the motion were read from Mr. Harry Gill, President of the Nottingham and Derby Architectural Association; Mr. William R. Gleave [A.], of Nottingham; Mr. Allan J. Pinn [A.], on behalf of the Council of the Devon and Exeter Architectural Society; and Mr. Robt. G. Wilson, jun. [A.], on behalf of the Council of the Aberdeen Society of Architects.

[†]A letter was read from Mr. Paul Waterhouse, Vice-President, sympathising with the motives which prompted the resolution but deprecating any such representation as the wording of the resolution implied being addressed to the Government.

Mr. Mark Judge [A.] had given notice to move the following amendment:

"That in the opinion of the Institute great changes are necessary in the By-laws and other Regulations in connection with building construction, and that they should be so amended as to give the greatest liberty of action where building construction is carried out under qualified direction, under the supervision of the Municipal Authority; further, that the Council be requested to convene a Conference of Corporate Bodies representing Architects, Surveyors and Builders and the Associations representing Urban and Rural Municipal Authorities to consider and, if approved, to submit to the Government on the matter."

It was objected by various speakers that Mr. Judge's proposed motion was not strictly an amendment as it dealt with the question of building by-laws and regulations, a point not intended to be raised by Mr. Wills's resolution.

Mr. Judge expressed his concurrence with the reasons for the resolution given by the proposer and seconder, but pointed out that its terms were capable of a different interpretation, and intimated his willingness to withdraw his amendment if the resolution were modified to meet this objection.

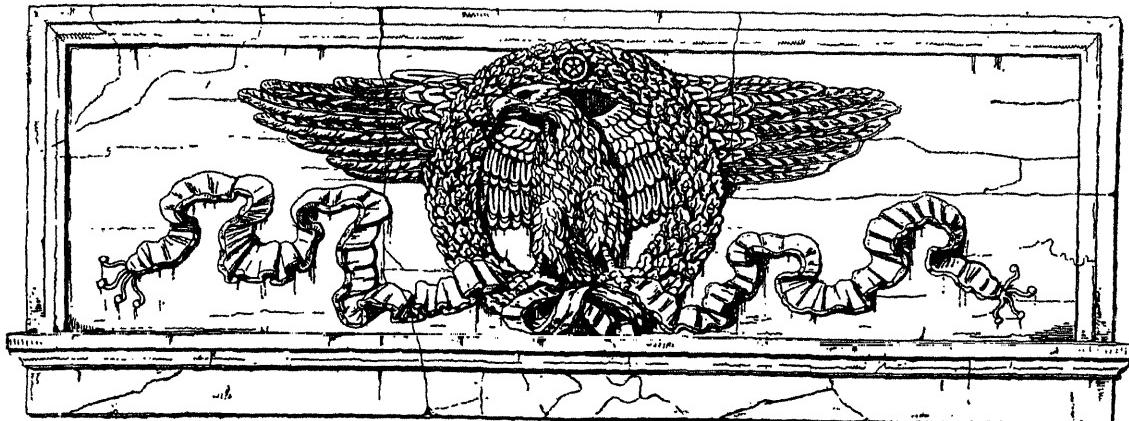
The mover and seconder thereupon corrected the resolution to read as follows: That in view of the important interests involved, this Institute should, in conjunction with other bodies, take steps to represent to the Government the serious objections to the continuance after the declaration of peace of the present war restrictions on building.

Mr. Judge expressed his satisfaction with the altered wording and withdrew his amendment.

The following took part in the ensuing discussion: Mr. R. J. Angel [A.], Mr. Wm. Woodward [F.], Mr. W. Henry White [F.], Professor Adshead [F.], Mr. H. B. Creswell [F.], Mr. D. B. Niven [F.], Mr. Bernard Dicksee [F.], Mr. H. V. Lanchester [F.], Mr. J. S. Gibson [F.], Mr. C. T. Ruthen [F.], Mr. H. H. Wigglesworth [F.], Sir Aston Webb, R.A. [F.], Mr. Arthur Keen [F.], Mr. Herbert Shepherd [A.], and Mr. George Hubbard [F.]

The President, speaking as a private member, expressed the view that in the present condition of the country's affairs it was not desirable to put the resolution in too definite a form; and suggested that it would meet the case if the Government were asked to remove the restrictions as soon as possible after the declaration of peace.

Mr. Arthur Crow [F.] asked leave to put the President's suggestion as an amendment in the following form—viz., That in view of the important interests involved, the



CO-OPERATION AMONG ARCHITECTS, AND SPECIALIZATION.

Discussion at the Eleventh Informal Conference, held at the Royal Institute of British Architects, 9th January, 1918.

Professor BERESFORD PITE [F.] in the Chair.

Mr. H. V. LANCHESTER [F.]: The overturn of established routine effected by the change from normal conditions to those of a war such as is being waged at the present time, if it does not actually evoke new ideas, at any rate brings into active expression all those that have been lying dormant during the ordinary routine of professional or business activity. We are apt to tolerate many failures of organisation and method, provided these do not definitely preclude the achievements which are the essential aims of our professional practice; but at a time like the present, when a drastic reintegration of the aspects of life is in progress, all who have any mental vitality feel impelled to reconsider factors that have been disregarded, and to consider in what directions there have been primarily poverty in ideals, and, following on that, defects of the methods aimed at securing achievement of these ideals.

Now the broadening of our views as to what architecture should stand for in national life has been the subject at some of the other conferences, so I am limiting myself to-day to the consideration of the question whether we architects among ourselves are really organised in such a manner as to enable us to give our services in a fashion to secure the best results with a minimum of waste of time and cost. It may, I believe, be substantiated that as a profession we are extraordinarily wasteful both of our energies and of our professional expenditure, and that moreover we are compelled by our lack of system to devote a large proportion of our time to duties which do not interest us and for which we are not specially qualified. While these facts are familiar to most of us, the explanation has frequently been given that the individualistic method from which this state of things arises is essential to the exercise of our art. Now this contention is, I am convinced, a fallacious one, and I would ask you to allow me to propound my reasons for this belief. I will grant that the finest and most imaginative work

is a thing apart from all minor considerations such as those before us. It comes from the hand of the man of genius and is appreciated by the few whose culture qualifies them to do so; of these few more are within the ranks of the profession than outside it, so that it is only comparatively rarely that the demand is made for a building solely on the ground of beauty and imaginative force. In the great majority of cases the demand is for one that fulfils certain practical requirements reasonably and economically, while if it simulates, in a superficial way, a work of architecture, that is the extent to which those who commission it can feel assured that their intentions are achieved. You will all agree that the really competent judges of architectural expression, outside the artistic professions, are few and far between.

Granted then that, broadly speaking, architects are the best judges of architecture, it remains to be determined how they can organise so that the public will be given better rather than inferior designs for buildings. It might be thought that this would demand an altruistic attitude on the part of those whose ability in design is but mediocre impossible of attainment, but I hope to prove that this would not be the case. An important consideration is the fact that men's gifts vary greatly even within the limits of the activities demanded by our profession. The efficient practice of architecture makes varied demands that can rarely be fulfilled by one man, however good his abilities and training. In ninety-nine cases out of a hundred the architect may claim to be skilful in one or two directions, and if he is wise he supplements his skill in others by expert advice or the judicious selection of assistants. Now this appears to me a method which is usually somewhat of a makeshift and not entirely fair to those concerned. The principal is induced to extend his activity into branches of work for which he is less equipped than many others. I maintain that if he collaborated rather than employed it would be better

for all concerned including himself. You will, I think, accept the axiom that we all prefer doing what we can do the best, and therefore any system that gives a man freedom to do only what he is best qualified to do is to be commended.

Under our present individualistic methods we all have to do a great deal that is not particularly our *métier* or to our taste, while if we collaborated more we should be able to divide our work without any loss; indeed, with a gain, in the aggregate, so that each would be doing exactly what he enjoyed most and what he could do the best. Before laying down a programme for such co-operation, I should like to outline the varieties of function comprehended in architectural practice.

To begin with, there is the tactful approach towards those promoting an undertaking, the expositions necessary to make it clear that their aims will be achieved. Next, there is the logical analysis of requirements and the comprehension of what these aims are. Then we come to the synthetic studies necessary to put in material form the appropriate structure. Following this, the architectural expression such a structure should take both in mass and detail, which is perhaps the only stage of the work that can be defined as purely architectural.

We now come to a group of proceedings not so closely connected with the design as to demand more than a linking up between the controls in each case ; the actual taking out of quantities or preparation of a schedule has already been cut apart, but many other questions such as the economics of structure and material afford opportunities for another type of faculty than that of imaginative expression. The actual progress of the building gives opportunities again for the exercise of various branches of knowledge even when the whole of the organisation is delegated to a contractor, but it is an open question whether this is uniformly the best method of producing a fine building, and, if it were not employed, a further demand in the way of organisation would be made on the architect. Following the actual building it has frequently been recognised as desirable that the architect should complete his work by designing and controlling the fittings, working plant, furniture, etc. It is very desirable that this course should be adopted, but here again the designer is apt to be overburdened if he has not the support of others technically qualified. Lastly, the interim and final adjustment of payments and accounts are matters with which the architect, as such, need only be in touch to a minor extent.

It appears to me obvious that, while the machinery just cited as necessary for the control of a building can be organised by one man, it is for at least two reasons undesirable that it should be. First, for the reason that at various stages quite different qualifications take the dominant place; and, secondly, for the reason that in the majority of instances it will not be the probable architectural character of the

building that will dictate the selection of the architect who is in the position of principal.

You will notice that I have not expanded this question of variation to include the specialisation in classes of building such as churches, hospitals, etc., because such specialisation can continue or not without affecting my argument, and also because I feel that the popular tendency is already too great in the direction of labelling men as specialists in architectural work. Architecture is in principle an art equally capable of giving expressive form to structural needs of all kinds, and the thoroughly trained architect should be capable of this translation in regard to any type of structure. There must be some measure of specialisation in the interests of efficiency and economy, but it is better in the subdivision of the work before cited than in the undue classifying of types of building. Let us beware of making a fetish of the latter.

It may be guessed that it was the question of providing for that numerous body of architects now in the Forces a convenient opening for re-entry into their profession which induced me to put forward the views I am now expressing, but they are none the less views I have long held, though it hardly appeared that there would be much probability of their adoption but for such a crisis as the present one.

To come at last to definite proposals, I class these under two heads, the more important one including such action as could be taken by architects mutually acquainted with each other's tastes and qualifications, the other covering what might be done by a professional society such as the R.I.B.A. After what I have said you will be aware that I take the view that architectural work should be more generally carried through by a group than by the individual. Personally I should prefer to see at the head of the group the man principally responsible for the imaginative qualities in the design ; but this would not always be practicable ; and indeed there are often cases of collaboration in which it would be impossible to say who is primarily responsible for the result. After all, it is not really important that there should be a titular head so long as each partner is qualified for the services he undertakes. What is important is that one or more in the combination should be men of real artistic power, selected by their collaborators for this qualification.

We in the profession well know that there are not enough artists to do the work demanded, and that those there are only find employment for a small proportion of their time in design, or are even often unemployed on anything because they lack certain qualifications which could be supplied by collaboration. I maintain that it is up to us as a body to economise our artists in the interests of the public, and keep the output of really fine work at a maximum. We are not depriving anyone ; the capable "all-round" building man designs because he has to, not because it is a peculiar and unique experience ;

occupation on scientific or economic problems is just as interesting to him ; and similarly all those taking part in a co-operative effort would group themselves so that each should exercise his functions in the branch most congenial and where he is most efficient.

You may imagine that the programme sketched out would involve substantial financial sacrifices on the part of some in favour of others. A few might find a slight reduction in income, but very few ; while the others would benefit to a greatly enhanced extent. Let us look at the economies. Taking the profession as a whole, and remembering those only half occupied or struggling with inappropriate work, I think I am within the mark when I say that the average output of the men capable in any specific direction would be doubled. Again, look at the economy in office rents and expenses. The number of offices could be reduced by two-thirds, but as they would be somewhat larger we could put rent, etc., at one half.

Something on these lines is already the general practice in the U.S.A., and I do not think it can be said that the art of architecture there has suffered in consequence. I would not advocate an exact imitation of American methods, conditions here being somewhat different. What I aim at is a programme retaining the personal power of expression, but organised to secure the advantages of working in co-operative groups.

With a view to meeting the special needs of men in H.M. Forces and of affording a graduated route to such co-operative methods, a sub-committee of the Architects' Reorganisation Committee has drawn up the following suggestions :—

" 1. That practising architects be invited to offer office accommodation to suitable applicants in return for a proportionate annual payment, based upon the rent of the office and upon the estimated value of any service rendered by the architect or his assistants ; or, alternatively, that payment by the applicant for office accommodation should be commuted for assistance rendered by him to the practising architect.

" 2. That practising architects be invited to offer office accommodation and either (a) a small salary or (b) a percentage of the profits in exchange for the part time services of the applicant.

" 3. Alternatively, it is suggested that practising architects requiring assistance should carefully consider the advantages offered by the co-operative system of conducting an office under which the senior architect would continue his professional work with the assistance of three or four younger men associated with him in the capacity of coadjutors or partners.

" In business arrangements of this description the close association of men possessing varied professional qualifications who are thus of real service to each other might confidently be expected to raise the quality of the architectural output of the office and to facilitate its production in the most economical manner possible. In addition excellent opportunities would arise from time to time for the gradual promo-

tion of capable junior assistants. The chief danger to be feared would be that arising from incompatibility of temperament between the various workers in the office, amongst whom it would be essential to foster a spirit of *camaraderie* and mutual goodwill. The terms of association with practising architects, on a yearly or other terminal agreement or for the duration of specific work, might be arranged as follows :— The coadjutor or partner to receive an agreed share (a) of the net earnings calculated upon a percentage basis, or (b) a preferential share of the net earnings, upon such work as he introduces into the office, the balance being equally divided between the partners. In these cases the term 'net earnings' would mean the gross receipts for the specific work introduced by the junior, less the proportion of office expenses allocated to that work.

" The sub-committee is of opinion that action on these or similar lines would not only be advantageous to those architects now serving in the Forces but would also be in harmony with what appears to be the general trend of social reconstruction after the war."

These suggestions give an indication of the ground that might be covered by members of our profession acting on their own initiative, but it does not quite cover the question of specialisation in the numerous arts and sciences connected with modern architectural practice. Here we reach the point at which the Professional Society may profitably come in. Taking our R.I.B.A. as an example, let us consider in what way a revision of the constitution might help us. Now, some of us have long felt that the class of Honorary Associates is in an anomalous position. It is not honorary, in that a subscription is paid, and there is no clear line between the qualification for Hon. Fellow and that for Hon. Associate. Now, I would suggest that the title Associated Members should be substituted for Hon. Associates, and that the qualification for the two classes should be on the following lines :

Hon. Fellows.—Distinguished amateurs and representatives of the Sciences and Fine Arts not receiving remuneration for any work in connection with building.

Associated Members.—Experts in various branches of artistic and scientific work connected with building operations.

The proposed distinction is, as you will see, based on the interest in our art being absolutely divorced from practice for profit or otherwise. Associated Members would be carefully selected as men of sound attainments in their respective branches of work, and they could thus be regarded as a kind of panel from which architects could safely invite advice or assistance in technical matters. This body of technicians, in conjunction with the Council of the R.I.B.A., could frame a suitable code for the relationship between the architect and the technical adviser, and thus smooth away many of the difficulties that

arise at present. Such a body of Associated Members would greatly strengthen a society like ours.

You will recognise that the propositions here put forward are merely in outline, but they must necessarily be but sketchy in view of the fact that no hard and fast system is applicable to the practice of an art combined with a profession of which architecture is the unique example. Emendations and expansions will doubtless occur to you, and I shall be most interested in and stimulated by your criticisms. At the same time I wish to make the claim that the general principles I have enunciated are sound ones, and my faith in them will not easily be shaken.

MR. A. SAXON SNELL [F.]: The ideas put forward follow very much those in a book I have heard of called "Guild Socialism," by Coles. There are several difficulties in regard to the idea of co-operation between architects. We have to remember that architects have legal responsibilities. A man whom I will term a practical architect may get an artist to join with him, but many good artists have hazy ideas of responsibilities and such may get the architect into a serious *impasse*, for which the latter would be responsible. In any such partnership each would have to give the other a bond that they would be jointly responsible for any mistakes which might arise. There is, too, specialisation in design. Many architects say they can do any sort of work, and even work of a particular kind, such as hospitals and baths. It is true, but they can only reproduce what has been done before; copying is easy, but the specialist is always ahead. Considerable difficulties arise from time to time in the employment of experts. In my student days not much had been done with regard to electric lighting, and I have been far too busy since to make a study of it, and have always had the assistance of an electrical engineer. Ordinary hot-water and heating I do myself, but for work requiring high-pressure boilers I get a specialist to help me. The difficulty is that the specialist naturally wants 5 per cent. commission on the work he does, and as the architect only gets 5 per cent. commission on the whole work he has to pay the specialist's fee and get nothing himself for the labour involved in explaining his plans, and so on, to the expert. On the other hand, the public would object to paying fees of 10 per cent. on the work, and if architects tried to insist on it they would not be employed. There is also the question of what special work is. I know of the case of a building where the concrete floors, the whole of the drainage, the plumbing and the engineering work were done by specialists. I think the public would be inclined to ask the architect what he *did* know. Of course, in the case of a great artist the public would not mind paying 20 per cent., but for the ordinary man they would not stand it. Unfortunately, the public do not ask for the highest quality of work, but want the job done at a certain price and with as little in the way of fees as possible.

MR. H. H. WIGGLESWORTH [F.]: I wish to express thanks to Mr. Lanchester for his stimulating address. I am very much in sympathy with his ideas, and they are what we should desire to emulate, though in some respects they are a counsel of perfection. In olden times architects looked to patrons for work. Great architects, such as Sir Christopher Wren and Sir William Chambers, secured much of their work from Royal and noble patronage, and thus were spared the uncongenial task of finding jobs. In America the combination of men of great commercial ability with highly trained artists has led to strength and efficiency. In this country the tendency for artists to forgo and stand aloof from business life has been detrimental to architecture, and has deprived art of those invigorating qualities that arise from contact with militant life.

MR. W. HENRY WHITE [F.]: I would like to add my thanks to Mr. Lanchester for his most interesting paper, or, rather, suggestion, because it only amounts at present to a suggestion. It would take many more meetings such as this to deal with the subject in detail. I think what is most needed at the present time is that we should devise some means to prevent architects losing their work altogether. It is being taken from us bit by bit. It commenced with the quantity surveyors forming a separate association, and it is developing along the line of "specialists" for all kinds of construction, until, with very little of the sort of collaboration which Mr. Lanchester asks for, one can conceive of buildings—I am not for the moment speaking of architecture—in which the architect *qua* architect would have no existence whatever. I think most of these questions solve themselves eventually, however much we may dislike to think it so, on the £ s. d. question. The £ s. d. question which has troubled most architects is that of the 5 per cent. scale, which has become the fetish of the building public when they think of employing an architect, and I think I am right in saying that for ordinary work, speaking in a general way, the public come to us because they feel they must have an architect and not because they think they really need one. The 5 per cent. scale of fees has, unfortunately, been so long in use, irrespective of the kind of work which an architect is supposed to do for it now, as compared with what he had to do when 5 per cent. first became a recognised charge, that this Institute should, in my opinion, say definitely what that original 5 per cent. meant, and what it should mean now as to an architect's work. It has been attempted by the Committee that dealt with the subject, and the new Scale of Charges—which is laid upon the shelf until the end of the war—in some way meets the position: recently also a Committee on the question of the employment of specialists have sent a report to the Council. My view is that the public will not be so concerned as to what the cost of producing each individual part of a building amounts to, if the Institute will lay

it down clearly in the Scale of Charges and will recognise that specialist work, as we now understand it, is quite apart from what an architect had to do when the 5 per cent. scale first came into use. The public have only to be taught that, and this Institute is the body to teach it, and *now* is the time. But what the Institute needs to do for architecture and architects is to induce the public to see the benefit of employing an architect, and that will quickly follow when architects are properly recognised. It is the old question of registration. So long as the public can go to any man who chooses to set up an office and call himself an architect, without any qualifications whatever, Mr. Lanchester's suggestions will, I am afraid, remain simply a dream. The Institute now acts as an examining body, but it should see that architects are properly educated as architects and that the public are protected, so that when a member of the public employs an architect he may do so with the knowledge that he is employing a capable man and one qualified—so far as examinations can qualify, apart from the higher ideals of design—to practise the profession. One of the speakers has mentioned that the design for the average building is not the principal thing which the public ask for, and I think that is correct. But the public should be taught that the properly educated architect can at least do what they want better than the universal-provider type. At present we know that, with the house agent architect, the surveyor architect, the concrete specialist architect, architecture itself is lost sight of so far as the public are concerned. Passing along the streets we see boards up giving the names of the builder and the "specialists" of a new building, but no recognition of the architect. The public, therefore, assume that those responsible for producing such buildings are the builders and specialists; they have no means of ascertaining, except through the professional journals (which they are not interested in), the names of the architects who designed the work. We are the last to receive recognition. Those are general remarks on the subject, on aspects of it which it seems to me would have to be carefully considered before any idea of a Guild could come into being. As to such a Guild, one has to recognise the way an architect develops a practice, the responsibilities of partners and their responsibility to the public, and so far as I can gather from Mr. Lanchester's remarks it would still resolve itself into a partnership in which one man will be principal and who will gather round him others to help him do his work, and that they would get a proportion of the profits—how that proportion is to be determined I do not know—and when they get dissatisfied with their proportion and feel it is time for them to be "top dog" I do not see how the Guild is going to "carry on," to use a phrase which is common just now, nor whether such a Guild would develop again on specialistic lines for special buildings. It is obvious that a man with a practice which consists of getting a £100,000 job every other year or so is in a

different position from one who gets twenty jobs of £5,000 each, and would require quite a different staff. And the client, of whom but little was said by Mr. Lanchester, but who, after all, is the man most to be considered, what is his position to be? I am trying to imagine an office conducted on Guild lines, consisting perhaps, of three or four men. Is the client to come and discuss his architecture with the principal, his drainage with another member, and the steel construction with another? [Mr. LANCHESTER: Yes.] It is interesting, but I am afraid there would be many practical difficulties. Following the idea that a Guild would allow for each man doing the work he liked or could do best: of course there is a lot of uncongenial work—there is some drudgery in most occupations—but I have yet to learn that it is beneath the dignity of any artist to enter into the details of any part of the work of which he is the originator. I think every part of a building needs to be designed for the purpose for which it is intended: design does not, to my mind, consist merely in what is presented to the public view. The design is in the plan, it is in the construction, it consists in the fitness of each part of the building for its work, and the architect who will not recognise that electric lighting, sanitation, engineering, and the other allied subjects have to be considered as part of his design is to my mind failing to realise his position towards his client; his general education should suffice to guarantee to his client that he is getting the right and proper thing for each part of his building. Mr. Snell mentioned a point bearing upon that: it was that the clients would not recognise that they should pay additionally for "specialists" work. Anyone who knows the amount of work the architect has to do in first obtaining instructions, then preparing the instructions for others to detail their work upon, in supplying the necessary drawings for their work and ultimately to generally supervise it, will, I am sure, realise that the architect is entitled to his proper percentage upon such work. In concluding, I would like to point out that in dealing with big buildings a combination such as Mr. Lanchester has indicated does, I presume, already exist, because every architect group round him in the course of his practice the kind of assistance that is needed in order to produce his work. If not, how do large buildings get carried out in the perfection of detail which we know obtains at the present time? I think that just at this moment Mr. Lanchester has seen a sort of vision, but we want help in the direction of some practical suggestions before we shall be able to see his vision realised. I beg to second the vote of thanks to Mr. Lanchester for his interesting Paper.

MR. A. R. JEMMETT [F.]: The great value of Mr. Lanchester's paper is that it seems to make a definite attempt to deal with what we have every reason to anticipate will be the future condition of our profession and of society in general. Mr. Saxon Snell referred to this condition as Socialism, but I think the right term is co-operation. There is one

point of view from which Mr. Lanchester's suggestions appeal to me very strongly, and, as he has not emphasised it himself, I should like to place it before you.

We were reminded the other day by Mr. Sidney Webb that architecture is a public service. What this entails, it appears to me, is that the profession as a whole is responsible for the quality of that service and responsible for the work that each individual member of the profession performs. At present we do not seem to recognise any such responsibility. We confine ourselves to making some sort of attempt at educating each individual architect to the highest level we can and then let him go his own way. If he puts up a very bad building we content ourselves with criticising it. I suggest this is entirely the wrong method—the wrong attitude—and that it does not pay in any sense of the term.

We have to remember that every bad building discredits the profession and reflects upon each one of us personally, and—what some of us think is a matter of importance—it does touch our pockets. We are individually losing money because some bad building may turn somebody off employing an architect, and that "somebody" might have employed you, Sir, or me. I don't think we quite realise this. We realise when we get a job, but not always how often we do not get one from the cause I have mentioned. The position is not improved by the fact—of which we were also reminded the other day—that there are builders and commercial firms who can put up better buildings than can some architects whose qualifications are supposed to be guaranteed by their membership of a professional society.

But in addition to really bad buildings there are others—perhaps the great majority—that show high qualities in some particular aspect, but fall short in others. Perhaps they are well planned but poor in elevation and detail, or perhaps they look very well but are badly constructed, or cost far more than they should have cost. Now, this is not rendering the best possible public service, and it is no credit to us. Neither is it necessary, for there is sufficient ability somewhere in the profession to do every part of the building well, if only we took the trouble to use it. The problem is how best to assemble and concentrate that ability in any particular building so that by a combined effort we could raise the standard of at least every important building to the general high level of the best in the profession, excepting always the work of genius. I certainly think that Mr. Lanchester's suggestion of co-operative offices tends to solve the problem of concentrating more diversified ability on each individual building, and so to raise the standard of our executed work. When half a dozen men are all working together, selected more or less for their different qualities, there is much more chance that every aspect of the building will receive specially qualified attention, so raising the standard of the building as a whole. At any rate, really bad

buildings could hardly be produced by this system. There may be other ways of arriving at the same result, such as the employment of the specialist or consulting architect, but the specialist has already been dealt with by other speakers.

With regard to the comment that something of the sort had been done in America, I want to emphasise the point that so far as I understand the American system it seems to be in essence an adaptation of the factory system. You appear to get the proprietor, or small group of proprietors, and the large group of paid assistants working under him. This factory system is the method by which we have built up our industrialism here during the last century, and it is no doubt largely responsible for making our civilisation what it is. It may be said to have succeeded on its own lines, and to have attained its own ends, but I imagine it is somewhat discredited now, and that this is not the time to advance on lines which appear opposed to the general trend of reconstruction after the war. There is a great difference between a large office on the factory system and co-operation between equals, and it is co-operation of equals that Mr. Lanchester appears to support.

I would like to put one or two more points. We have had some discussions about the attitude of omniscience that is to some extent perhaps forced upon us by the public. I am inclined to think that the creation of co-operative offices would enable us to justify that attitude. It would no longer be a question of the omniscience of an individual, but of a group which might perhaps fairly claim to possess an expert in each of the principal sub-divisions of our work. Incidentally, the present problem of the expert may find solution on these lines, and if I were to venture on a criticism of Mr. Lanchester's scheme it would be that with co-operative offices we might hardly need his suggested expert Associated Members of the Institute. We might all keep our experts on the premises.

This brings us to a question of considerable importance—the question of official architecture. Here I believe the co-operative office will help us considerably. Opinions differ as to the value of official architecture and large departmental offices and as to the quality of the work they produce. But, whatever our opinions, we have to recognise that unless they serve some useful purpose they would not exist, and that they will go on existing so long as in the opinion of the public bodies who employ them they serve this purpose better than the independent individual architect can serve it.

One of the advantages that enable, or should enable, the large departmental offices to render efficient public service is just this greater command of expert assistance than is usually of the average individual architect. They are able to have on the premises a highly trained specialist in every branch of the work they undertake, and of the highest quality that the particular city can produce. I do

not say it always is so ; and when it is, it becomes difficult for the individual architect to compete in that expert technical efficiency in every practical detail which seems just now to be more sought after than expert efficiency in general architectural conception and design.

I suggest that a good co-operative office would be able to compete with a large departmental office on its own ground, and render an equally efficient public service on the lines of technical efficiency. Being independent and free from the disadvantages apparently inherent in the nature of a departmental office, it would in my judgment be in a position to render a superior public service on the lines of general architectural efficiency.

The last, but by no means the least, point that I would like to make is that the formation of offices, or groups of men, working on co-operative lines would tend to give the young artist a better chance of getting into practice. Men of sensitive nature devoted to aesthetics rarely have the knack of getting work for themselves. Many such men never get a chance. It is one of the results of our lack of organisation that there is no system for pushing forward the brilliant student and providing him with an opportunity to practise for the good of the country, and incidentally for the credit of the profession as a whole, and the improvement of our own individual status and prospects. It is simply a matter of enlightened and intelligent self-interest. If we had these co-operative offices I feel sure that they would all feel bound to have a really good designer in the group, and that every young student of special merit or distinction would be snapped up and given a chance. He would form part of a sympathetic group or community where he would be helped and encouraged, and, if you like, protected from the rougher side of life and of our practice. From this point of view alone I think it would be worth while to try the experiment of offices on the co-operative principle.

There are other arguments in their favour, but I am afraid I have already spoken at too great a length. I would like to heartily join in the vote of thanks.

MR. HUGH DAVIES : We should be grateful to Mr. Lanchester for bringing this matter forward, for, although we may not have arrived at any definite conclusion this afternoon as to what should be done, it does not alter the fact that the problem is a very important one. The point of view of the profession is still that the architect must cover the whole ground of work connected with buildings. We know that to be almost impossible nowadays. But, at the same time, there does exist amongst young architects a great deal of ability that is not directed towards the best ends. In the schools we find many young architects, who undoubtedly have what Professor Pite has described as the Divine spark of genius for design ; but there are others who have special abilities for those other departments of professional work which Mr.

Lanchester has outlined. I always feel that it is really a loss to the profession as a whole when a young architect, leaving, perhaps, his principal and entering into professional practice on his own account, has to sit and wait for years for ordinary commissions, when he might be employing such special talents as he possesses in advancing the profession along those specialised lines. I think the failure of the present system of architectural education to find for every young man just the niche that he is best qualified to fill is responsible for the fact that so much professional work has been filched away by other people—frequently by quite incompetent people—who claim to be specialists on this, that and the other subject. We have not to-day found the real solution of this problem. It is, however, important that every part of the work of the profession should be carried out by the men who are best qualified to do it, and that the abilities of every one of these young men should be utilised to the greatest possible extent. We are now at a time when efficiency in the future is the watch-word. We are considering how we are going to employ to advantage the abilities and the energies of every class in the nation ; and I think it is "up to" the architectural profession to see that, after this war, we shall have the affairs of the building industry as well organised from the point of view of efficiency as those of any other industry. Many young men who go through the ordinary curriculum to-day should, I think, be induced to specialise in some direction as well, so that with a training suitably adjusted to their abilities they may prove real assets in the profession and contribute more effectively to the prosperity of this country in the future.

THE CHAIRMAN (PROFESSOR BERESFORD PITE [F.J.]) : I need not put, formally, that vote of thanks to Mr. Lanchester : we have practically all expressed our great sense of obligation for his interesting paper. On the subject itself I would just like to say I think Mr. Lanchester has only half dealt with it : he has not laid hold of the foundation really. If we have this co-operation, it must include building. The moment we understand it includes building, the whole of our outlook upon architecture as a profession, as an operative art, alters. Many—I had better say some—within my knowledge, have tried it. A very remarkable man who tried it on a large scale was Edward Welby Pugin. I do not know whether he was no possibility of getting good work done unless he co-opted the whole building trade, so he made his bricks, built his buildings, made his fittings and furniture. There are groups of buildings at Ramsgate that Edward Welby Pugin built which are most significant. One has been mutilated beyond recognition in the big Granville Hotel. That hotel Pugin not only designed but built, and he not only designed the furniture but he made it. And he was only carrying out the principles which his father felt to lie at the basis of

successful mediæval building when he built the interesting Roman Catholic Church and the house adjoining known as The Grange. But Edward Pugin also built a large convent and also a large college, besides having several other buildings in that part of the land. I feel that if I am going to co-operate with anybody I want to co-operate with the builder, with a man who will get the thing done. With regard to Mr. Lanchester's interesting sketch of every department of thought and activity co-operating, I would like to remind you that generally we are only dealing with buildings of the first class, or of considerable size, with £20,000 as the low limit—[Mr. LANCHESTER: I do not suggest a limitation of co-operative offices]—Then I shall have to ask what is the average income of members of this Institute, and classify ourselves accordingly. My suggestion is that in the case of every builder into whose hands I wish to put work, say of £50,000 and upwards, or even a lower figure, that builder already is in possession of a co-operative establishment, with experts in every department: he cannot get his work done without these men. Therefore we have to guard ourselves against the danger of creating in our profession another co-operation to watch that co-operation. Under the builder there are co-operations of various kinds. Ferro-concrete work and steel are co-operations already. It may become co-operation upon co-operation upon co-operation. The revolutionary step that I would like to see taken—and I think I am as brave a revolutionary, in a different way, as Mr. Lanchester himself—is to see architects put in the position of carrying out their buildings and allowed the responsibility of expending the capital sum employed upon their buildings. And the moment the architect is thus brought into contact with materials, with structure and with positive work, we shall get a good many of our ideals brought into the sphere of action. The effect upon the training of the architect and on the resultant buildings will be considerable.

We are discussing these things informally, to stimulate our imaginations. I suggest we should not stop with co-operation in offices: we must extend it to the buildings and to the works. If you have a large building and you employ what specialists you like upon it that you feel necessary, then you put it into the hands of a first-rate contractor; he does not accept your specialists, he puts his own upon it, all the way through. Let me instance engineering. Take any great engineering contract, such as one for constructing an aqueduct, or a viaduct, or a railway. The consulting engineer will work his scheme out, he will employ all the scientific resources at his command, and will put the work into the hands of a contractor, and the contractor immediately does the same. The contractor's staff is as highly qualified and as highly equipped as is the consulting engineer's staff. Then the consulting engineer puts a resident engineer down on the works to watch the contractor's resident engineer. This is going on under our very eyes. We have

carried out contracts with the assistance of one of these most excellent and delightful and splendid building organisations that we call a "contractor." I do not mean a small contractor who is struggling with difficulties, but the man who is master of his science of building. This co-operation does exist in the building trade, the specialists are brought together at the contractor's office, and the work is done by those men. What has to be supplied to him? It is representation of the client's requirements and a satisfaction of the architectural necessities of the case. And this is what the architect has to do. He must be a competent plan organiser, he must understand and direct, and describe in drawings and give details; and if he concentrates upon that he is doing at present what he is paid to do.

The experience of co-operation and enjoyment in the office, as described by Mr. Lanchester, has been mine. I was bred in a very large firm: my father was a member of a firm which consisted of four partners. There was a good deal of co-operation in that office. I passed from that into the office of a friend who has been dead a few years now, where we were a most happy party, the happiest, I think, that ever worked in an office. There was an extraordinary man there who would get more delight out of dealing with a party-wall difficulty than my chief would have derived from a water-colour drawing; and the charge of atmosphere and the pleasure of a good legal struggle for light and air came into the midst of this highly artistic office as an enjoyable episode. We worked with the quantity surveyors too: they came and worked in the office. We did not let the drawings go out, and that is a very pleasant and satisfactory way of getting work done. It is not always possible, but it is a way out of the sort of difficulty which often exists when the architect does not take out the quantities himself. But I must say, in making my confessions, that my own view is I do not care so much about 5 per cent., for those things right themselves. If you are out to make 5 per cent., you are welcome to do your best to get it, but it is not everything. What I want to confess is, that I never feel I can surrender the building to anybody else, or to any co-operation, for that matter. I feel that the specialist is only a specialist for my purpose of getting the work done. Of course, when it comes to engineering schemes, unless the architect is able to understand what the engineer proposes he ought not to undertake the work at all.

I hope Mr. Lanchester's idea will germinate in our minds, and when it eventuates in a company, which need not be labelled with any decorator's name, I will go in for it as long as I have a share in doing the thing that I get enjoyment from designing. Then the matter of the 5 per cent. will disappear, because the profit, in the long run, would be nearer 15 per cent.

MR. LANCHESTER (in reply): I think most of the criticisms which have been levelled at my head are due

to a difference of view as to what co-operation really means. I have co-operated with many brains, and I hope to co-operate with more. Take the case of the engineer to which Mr. Wigglesworth referred. When I have wanted to co-operate with an engineer I have made a point of the fact that the engineer brought his drawing alongside of mine, and as I threw him sketches of the thing I wanted he worked on them, and asked, "Does this comply with your architectural requirements?" That is the sort of thing we get in co-operation. In regard to legal liability, all the cards are on the table, and the co-operator says, "It is rather risky what you are doing there; will you not be liable for this if you do it?" If it comes to a point of that sort, it must be for those who co-operate to decide; and if it is an important point everybody will be concerned. There are many partnerships in the country, hundreds, some numerically large, limited and unlimited, which deal with things of that sort: there is nothing new in the principle. A criticism was made on the question of construction. If you will read my paper carefully, you will see I have not attempted to make out that construction is not architecture; I have merely said that on some of the points, like the selection of the best material, or something of that sort, another brain is worth consulting.

In the case of the architect and the client, which Mr. Wigglesworth referred to, I regard the man who negotiates with the client and "pulls the job off" as simply the pioneer of the firm. The man who does that too often says to himself, "I can put this job in my pocket, and I will get it done as cheaply as I can." That is why we see these appalling buildings in our streets. I want to show that such a man has a responsibility towards architecture, towards his profession, of which he is probably a respected member, and that he should help to form an organization in which "pulling a job off" is not regarded as the only thing

which has to be done, that the building has to be designed. Mr. Jemmett and Professor Pite said I had missed something out: I don't think I missed out either of the points they mentioned, but I did not enlarge upon them. In reply to Mr. Jemmett, what I said was, "Granting that, broadly speaking" (etc.) In answer to Mr. Pite, I admit I did not emphasise as much, perhaps, as I ought to have done the possibilities in building without a contractor, but I am in sympathy with what he said on that subject. It means going a good deal further in organisation, and it would be more difficult to do. I merely put what I regard as the obvious steps we should take straight away, or at all events on the conclusion of the war, and even in this I may be over optimistic.

Mr. White made a considerable point of the 5 per cent. I say it does not so much matter, because we ourselves would earn another 1 per cent. by our superior organisation, if not a good deal more. Some men have told me that more than half their commission goes in office expenses. I think the suggested system would improve the working power which would be got out of men; to the extent, at all events, of 1 per cent. I am attaching very little importance to the financial details. We should be on the right side in any case. What I do attach importance to is the sort of life we should get. Mr. White referred to the client who comes and says, "These are my ideas, I only want you to put them into form." That is the man I like to see. He goes on doing it, and in the end he says: "This is a magnificent building: I designed it myself, and everyone is satisfied." I think you will follow the general trend of my feeling towards the criticisms, but I shall study them carefully, to see if I ought not to revise my views as to details, though, as I have said, I am hardly likely to alter them in principle, except, perhaps, to enlarge them in the direction Professor Pite indicated.

UNITED STATES TIMBER SUPPLIES.

By JOHN R. WALKER, United States Trade Commissioner.

[The following Memorandum upon the subject of the United States Timber Supplies available for use in the Reconstruction programme of the United Kingdom after the war was prepared by the author for the Timber Controller, and has been placed at the Institute's disposal for the information of architects.]

SOUTHERN PINE.

OUR Southern Pine Forest stretches along the coastal plain from Virginia to Texas and embraces the largest forest area in America. This forest embraces three sub-species of pine timber—viz., long leaf, short leaf, and loblolly, all of which we include under the term "Southern Yellow Pine." The long leaf pine is the timber which has been known in this market as pitch pine, and the short leaf and loblolly pines have been known in this market as North Carolina Pine.

The annual production of sawed timber from this forest area is in excess of 7,000,000 Standards, and it is estimated that this output can be maintained for a period of ten to fifteen years, after which it will decline. The chief characteristics of the long leaf pine are that it is of relatively slow growth, and consequently close grained, and possesses exceptional strength. Also it consists largely of heart wood as distinguished from sap wood, and contains a large quantity of pitch and turpentine, for which reasons it has great durability when exposed to moisture. The loblolly pine, on the contrary, is a tree of rapid growth, and consequently

wide grained, and is almost altogether a sap wood. It has less strength and less durability than long leaf pine, but is better adapted for use in joinery, as it is more easily worked, and takes paint better because it contains less pitch and turpentine. The short leaf pine occupies a middle place between the long leaf and the loblolly. Certain specimens approximate the long leaf pine and others the loblolly pine.

Southern Yellow Pine is the wood which we use more largely than any other for general housebuilding and construction work. For interior finish and joinery and for the carcassing of buildings we use those three woods interchangeably, and when we want exceptional strength we stipulate that the material must be close grained, and when we want exceptional durability we stipulate that the material must be free of sap. While it is the long leaf pine which most readily complies with these requirements, yet a short leaf or a loblolly timber which also complies with these requirements gives equal satisfaction. The test for strength is not the sub species to which the particular stick belongs, but the closeness of the grain, and the percentage of hard or summer wood; likewise the test for durability is not the sub-species, but the percentage of heart wood.

DOUGLAS FIR OR OREGON PINE.

Next to the Southern Yellow Pine forest, the forest area of the North Pacific Coast is the largest in the United States, and of this area the principal species is Douglas Fir or Oregon Pine. The other important commercial species are red wood or sequoia, Western hemlock, silver spruce, and Western red cedar.

The annual production of Douglas Fir is approximately 2,500,000 standards, and across the boundary line in British Columbia there is a further production of 400,000 standards, which must be considered along with the United States production of Douglas Fir, for the reason that it comes from the same forest area, and is manufactured to the same standards. It is estimated that the present annual production of Douglas Fir can be maintained for a period of 150 years, but in the natural course of things the annual production will increase, and the life of this industry be correspondingly decreased. Douglas Fir is used by us interchangeably with our Southern pine in all sections of the country where transportation considerations permit of competition between the two woods. Douglas Fir is a wood which is practically free of sap, and is consequently durable, although somewhat less durable than the best long leaf pine; its strength and its hardness is only slightly less than that of the Southern Yellow Pine.

The table showing the production of our principal commercial species of timber indicates all of the species which we are prepared to furnish in the export trade, but since our Southern Yellow Pine and Douglas Fir constitutes more than half of the total annual production of timber in the United States, and are the woods

which are pre-eminently suited for use in general construction work, I shall confine the present discussion to these two species.

PROBABLE AVAILABLE AFTER-THE-WAR SUPPLIES.

In both the Southern Yellow Pine and the Douglas Fir Forests the logging practice is entirely different from the practice that you are familiar with in Scandinavia, Russia and Eastern Canada. In the latter regions logging is a seasonal operation confined to the winter months, and the production of sawed timber during the succeeding summer months is necessarily limited to the supply of logs which are brought out of the woods during the winter.

In our Southern and Western forests, on the other hand, logging operations continue throughout the year, and within certain limits can be enlarged from time to time to correspond to the demand for sawed timber. The Douglas Fir being almost entirely free of sap, no difficulty is encountered during the summer months with respect to staining of sap wood, and in the Southern Pine forest the tendency of the sap wood to stain when the timber is felled during the summer months is counteracted by immersing the logs immediately after felling in fresh water mill ponds, where the logs remain until converted.

It is the general practice in both the Southern Pine and Douglas Fir milling industries to dry by artificial means immediately after sawing, all boards, planks, and small scantlings, although in the case of the scantlings perhaps half of the larger mills dry these in the open air by a process of open piling which prevents sap stain.

Normally the stock of converted timber on hand at the mills both in the South and the West will not exceed one month's production, but of course this varies from time to time according to the state of the market.

From the foregoing it will be seen that no safe conclusions can be arrived at as to the probable supplies available for shipment after the war, from a consideration of the stocks of sawed timber on hand, for the reason that in the vast majority of cases the timber would be felled, the logs converted, and the sawed timber dried after the order was received, as all of these operations normally would not require more than two to four weeks' time.

Our exportation of Southern Pine to all of Europe for the year ending 30th June, 1914, was approximately 350,000 Standards. The exportation of Oregon Pine to Europe was approximately 20,000 Standards. A doubling of our export to Europe of Southern Pine would involve an increase in production of only 5 per cent., or without any increase in production a similar curtailment of our domestic consumption. Our export of Southern Pine to the United Kingdom for the year ending 30th June, 1914, was approximately 115,000 Standards, or 1½ per cent. of the total production of these woods. Quadrupling of our export of

Southern Pine to the United Kingdom would therefore involve an increase in the production of this wood to less than 5 per cent. It is my opinion that, provided of course tonnage is available, and other considerations which I shall subsequently note, are overcome, we could furnish 250,000 Standards of Southern Pine for exportation to the United Kingdom during the twelve months following the close of the war, and annually thereafter for several years.

With respect to Douglas Fir, the exportation to the United Kingdom for the year ending 30th June, 1914, was approximately 17,000 Standards, or two-thirds of 1 per cent. of the annual production. In view of the fact that the production of Oregon Pine has not yet reached its peak, and in view of the tremendous available forest area, I think it can be fairly said that the exportation of this wood to the United Kingdom could be enlarged indefinitely, provided of course that tonnage is available. Making allowance for tonnage difficulties, I think it might be roughly calculated that in the year following the conclusion of the war there would be available for importation into the United Kingdom one half as much Oregon pine as the above estimate of pitch pine—viz., 125,000 Standards.

AMERICAN STANDARD SIZES.

Unquestionably in the past a bar to the larger importation of American soft woods for use in general construction work in the United Kingdom has been the fact that your architectural practice in the use of timber does not coincide with our building practice, nor with our system of timber manufacture.

The fundamental reason for this, as I see it, is that your building practice has grown up around the soft woods from the Baltic, and your standard of sizes has been adapted to the physical properties of these woods, whereas in recent years, since we have been building with our Southern and Western pines, our building practice and our standard sizes have been reduced below the standards which prevail here, because in our opinion they more correctly reflect the physical properties of the woods we use.

Without at this time going into all the details of the subject of standard sizes, a general view of the situation may be given by the statement that the usual practice in our Southern and in our Western pine industries is to manufacture all material to even feet in length and to even inches in width. The "stock sizes" are 4, 6, 8, 10 and 12 inches in width, by 1, 1½, 2, 3, 4, 5, 6, 7, 8; 9, 10 and 12 inches in thickness, by 10, 12, 14, 16, 18, 20 feet in length and over. The custom with the saw mills is to set their saws to produce the dimensions above given in the green timber. These stock sizes are then piled for drying—the smaller sizes and boards being frequently artificially dried by dry kilns—and in the process of drying the timber shrinks slightly below the sizes above named. The rate of shrinkage in these woods is not as uniform as in the slower growing Baltic and Canadian woods.

Consequently the general practice is to run these dry boards, scantlings and joists through a planing or equalising machine, which finishes them to a size which is of course somewhat smaller than the scant sizes of the rough dried material above indicated. In other words, a 6 by 2 joist would be that exact size when it came from the saw mill; after it had dried it would perhaps be 5½ inches by 1½ inch. The standard or finished size of a 6-inch joist is, however, 5½ inches, which is arrived at by running the stick through a planing machine and planing one edge so as to produce this dimension. When desired, one side of the joist is also planed without extra charge down to the standard size of 1½ inch. The standard size of all scantlings and joists is likewise ⅜ of an inch scant of the nominal green size. All inch lumber is finished to 13/16 of an inch in thickness, and when the edges are planed the standard width is ½ inch scant of the nominal green size. Flooring strips are 13/16 of an inch in thickness, and 2½, 3½, 5½ face measure, exclusive of the tongue, and all of this material is tongued and grooved. The nominal green size of the flooring strip which produces a piece of flooring 13/16 by 3½ inches in width is 1 by 4.

Elaborate tests have been made by the United States Forest Products Laboratory and by the Canadian Forest Service to determine the strength of various woods, and these tests indicate that the Southern pines are from 33½ per cent. to 50 per cent. stronger than Canadian and Baltic yellow pine, red pine, and spruce, and that Oregon pine is 25 per cent. stronger than these Northern woods. I have also seen the results of special tests made in this country for various purposes, which confirm the general comparisons above given. It therefore appears that while a 6 by 2 Southern pine joist dried and finished to 5½ by 1½ would contain 12½ per cent. less cross section or cubic area than a 6 by 2 Baltic or Canadian red wood or white wood full size joist, yet it would possess the equivalent strength of such a joist, and, in fact, something like 15 per cent. more strength.

ENGLISH PRACTICE IN THE CONSUMPTION OF WOOD.

In general construction work it is the practice of British architects and engineers to specify various sections for joists, scantlings, and so forth, which are to be found among the ordinary stocks of Baltic and Russian woods. This practice is set out in various English works on building construction, in various works regarding timber, and in building by-laws of various towns and cities.

The chief difference between the British practice and our American practice is that the sections which British usage prescribes are materially larger than the sizes used in American practice, and also the sizes specified in British practice must be full-size material, whereas under our American practice the actual finished size of various scantlings is somewhat scant of the nominal size, as has been heretofore explained.

ADVANTAGES TO BE GAINED BY PROVIDING FOR THE USE OF AMERICAN STANDARD SIZES IN AMERICAN WOODS IN THE AFTER-THE-WAR BUILDING PROGRAMME.

Generally speaking, the importation of American soft woods has heretofore been confined to large timbers which cannot be obtained elsewhere, and to sawed deals and boards specially manufactured for this market, to measure full size after drying.

Not more than 5 per cent. of the saw mills in the United States have heretofore catered for the export trade, chiefly for the reason that it is difficult to co-ordinate the export trade with the domestic trade, except where the mill is in a position to saw upon a large scale. The consequence is that the English importer has not been able to draw upon the enormous stocks of converted sizes of soft woods which are always on hand at our mills, but has had to confine his purchases to the limited number of mills which have engaged in this business, and it is the general practice among the export mills to secure orders for export stock before manufacturing this stock. The result is that export stock is to a large extent shipped green, whereas our domestic stock is to a very large extent shipped dry, which is a large advantage from the standpoint of the actual consumer of the timber.

Furthermore, the selling price of export stock is, generally speaking, above the level of the corresponding grades of our domestic stock, for the reason that the export stock is specially manufactured and must be charged with the expense incident thereto, and also with the loss which is involved in reducing to our standard finished sizes the degraded material which is not good enough to be shipped for export.

If in the after-the-war building programme English architects see fit to provide for the use of American Standard Sizes, when American woods are used, it will be possible to purchase material from any saw mill in America—and there are 40,000 of them. Dry stocks will always be available, and by shipping our finished material a considerable saving in tonnage will be effected, which together with the saving in the original cost of the material will probably amount to a saving in the delivered cost of £4 per standard.

Furthermore, the standardisation of grades in the domestic trade has been developed to a very much finer point than in the export trade, the grades are more numerous and more specific, and there is a well organised inspection bureau operated by the Association of Manufacturers, which supervises the grading of individual mills to see that the standard grades are maintained. In the export trade, on the other hand, while there are published rules, these rules are very general in their descriptions, and there is no inspection bureau which supervises the grading of export stock.

Unquestionably, generally understood grades and the strict maintenance of grades would conduce to the extension of the trade between our country and yours

and would result in a substantial monetary saving to both sides. Adoption of our standard sizes and our domestic grading would be a long step in this direction.

I propose to send you as soon as they are received from the other side copies of the standard domestic grading rules on Southern yellow pine, but meanwhile I can explain these grades in a general way as follows :

A Grade is a grade which is free of all defects. B is a grade which only admits very small defects. No. 1 Common is a grade which admits sound knots which do not affect the strength or general utilisation of the piece in question. No. 2 Common is a grade which admits large knots and other defects which, however, do not destroy the availability of this material for cheaper forms of construction work. It is a grade which about corresponds to the material which is used in the English market for box-making purposes. No. 1 Common about corresponds with a Swedish No. 3. B Grade would about correspond with the best material which is obtainable in the Baltic. In none of the grades above described is bright sap regarded as a defect. When all-heart material is wanted this must be specified, and it involves an extra cost of £2 to £4 a standard.

Heretofore the English market has demanded practically sap free material, but I am convinced that this has resulted from the fact that, as above explained, our export stock is specially manufactured and shipped green, and if sap material is shipped green it becomes stained in transit, and is unsatisfactory to the user. Where the material is dried before shipment, however, sap material is equally as serviceable as heart material for all purposes which do not involve exposure to moisture.

From the above it will be seen that there are three factors which will make for a large saving in cost if American grading and American Standard Sizes are adopted in the English market. First, because it will not be necessary to manufacture this stock specially; secondly, there will be a large saving in freight cost by shipping converted sizes and dry stock; and, thirdly, by making possible the utilisation of a very much larger proportion of bright sap material instead of practically all-heart material as heretofore.

FLOORING.

The English practice with respect to flooring in ordinary house construction is to build floors of 5½ inch and 6 inch Baltic red or white wood, which is square edged and full of knots.

The American practice is to manufacture all flooring tongued and grooved and from narrow strips, for the reason that narrow strips practically free of knots can be obtained at a comparatively small cost, and we like material free of knots, because we use rugs very largely instead of carpets, which leaves the flooring exposed to view.

The standard sizes of American flooring are $2\frac{1}{4}$ inch face, which is manufactured from a 3 inch strip, and $3\frac{1}{4}$ inch face, which is manufactured from a 4 inch strip. The finished thickness of our flooring is $\frac{1}{2}$ inch instead of $\frac{3}{8}$ inch, as is customary in England, but in our harder pitch pine and Oregon pine $\frac{1}{2}$ inch will afford very much more wear than $\frac{3}{8}$ inch in the softer Baltic woods. When no stipulation is made as to the position of the grain in flooring we describe the material as flat grained. When material is wanted in which the grain is vertical, we describe it as quarter sawed, or as edge grained, or as vertical grained, and we charge from £2 to £4 per standard more than for the ordinary flat grained flooring.

DOORS.

Another important item is Doors. Heretofore the cheap doors which the English market has consumed have come almost entirely from Norway and Sweden. In America we make millions of doors from our Southern pine, from Oregon pine, and from white pine, which you know as yellow pine, but the difficulty which has stood in the way of shipping cheap doors to this market is that our door is a dowelled door, whereas this market has become accustomed to the mortised door, and no one has seen fit to undertake the task of introducing the dowelled door.

I have discussed the relative merits of the dowelled and the mortised door with large door merchants and with building contractors in the United Kingdom, and almost without exception they have agreed that a properly made dowelled door is every bit as strong and as serviceable as the mortised door. As indicating the strength and durability of dowelling, my attention has been directed to the fact that nearly all of the fine old English furniture was dowelled, and this has lasted through the centuries.

One advantage that the American door has over the Swedish door is that it is made from knot-free material and therefore presents a much more attractive appearance when finished in its natural colour. For all interior purposes our Southern pine and Oregon pine doors are from every standpoint equal to the Swedish door. For front doors our white pine door is to be preferred.

PREFERRED USES FOR VARIOUS AMERICAN Woods.

For all interior constructional purposes our Southern pine and our Oregon pine are the most available, and are equally as suitable as any other woods. In work which is exposed to the elements, and for use in direct contact with moisture, the wood *par excellence* is cypress, and after it sequoia, and Western red cedar. Also all-heart pitch pine and creosoted Oregon pine and Southern pine. I shall not discuss the special uses to which our large variety of hard woods are adapted, as America is already the chief source of supply for hard woods, and their uses are very well appreciated in this market.

PRICES AND SHIPPING ARRANGEMENTS.

Of course, any statement as to the probable f.o.b. price of American timber at the conclusion of the war, or of the probable tonnage available for transporting it to these markets, is pure conjecture. Taking into consideration the prevailing prices of American timber, and assuming that they will increase somewhat at the conclusion of the war, my own guess is that the average price of Southern pine lumber f.o.b. vessel at the Gulf Ports for mill run material, excluding culls, and containing 10 per cent. of A, 15 per cent. B, 35 per cent. No. 1 Common, and 40 per cent. No. 2 Common, at the conclusion of the war will be £16 per standard.

The cost of transportation to Great Britain will, of course, depend upon the tonnage then available, or upon the rates of carriage fixed by the British and American Governments if they continue to exercise control over ocean shipping after the war; but as a working hypothesis it might be assumed that the present tonnage will be maintained until the end of the war, and that ocean rates will decline below the present open rates to the extent that such rates are influenced by the war risk which the vessel owner must pay upon the vessel. The open rate from the Gulf to the United Kingdom immediately following the conclusion of the war will hardly be less than £20 a standard. How much this rate will be diminished through Governmental action it is, of course, impossible to say.

With respect to the question of who shall provide the tonnage for the transportation of American timber to the United Kingdom after the war, I assume that an agreement would be reached somewhat along the following lines: The English and American Shipping Controllers respectively would allocate to the timber trade a proportion of the total tonnage available which would be approximately the same as the proportion which the timber tonnage bore to the total tonnage in 1913, and that the American sellers would undertake to provide for the transportation of a proportion of the timber sold to the United Kingdom which would be equivalent to the proportion which American tonnage bears to the total tonnage of the two countries at the end of the war, and the British buyers would provide for the transportation of the remaining portion.

AVERAGE ANNUAL PRODUCTION IN THE UNITED STATES OF SAWED TIMBER OF THE PRINCIPAL COMMERCIAL SPECIES.

American Name.	English Name.	Standards.
Ash	...	100,000
Basswood	Whitewood	135,000
Beech	...	190,000
Birch	...	220,000
Cedar	...	250,000
Chestnut	...	275,000
Cottonwood	...	100,000
Cypress	...	510,000
Douglas Fir	Oregon Pine	2,500,000
Elm	...	110,000

Hemlock ...	...	...	...	...	...	1,100,000
Maple ...	...	...	...	...	...	500,000
Oak ...	...	...	...	...	...	1,700,000
Poplar ...	...	Canary Whitewood	...	...	...	260,000
Red gum ...	...	Satin Walnut and Hazel Pine	...	...	...	400,000
Redwood ...	...	Sequoia ...	...	...	...	275,000
Spruce ...	...	...	...	...	...	625,000
Western Pine ...	...	Yellow Pine	...	...	...	700,000
White Pine ...	...	Yellow Pine	...	...	...	1,300,000
Yellow Pine	...	Pitch Pine and N.C. Pine	...	...	...	7,250,000
All other ...	...	...	...	...	...	600,000
Total ...	...	...	...	...	...	19,100,000

EXPORT OF HEWN AND SAWED TIMBER (INCLUDING RAILWAY SLEEPERS AND LOGS) FROM THE UNITED STATES DURING THE YEAR ENDING 30TH JUNE, 1914.

Total Export ...	...	...	1,630,000 Standards
Total Export to Europe ...	...	...	500,000 "
Total Export to the U.K. ...	...	...	265,000 "

AVERAGE ANNUAL PRODUCTION IN CANADA OF SAWED TIMBER OF THE PRINCIPAL COMMERCIAL SPECIES.

American Name.	English Name.	Standards.
Spruce	750,000
White Pine	Yellow Pine	400,000
Douglas Fir	Oregon Pine	400,000
Hemlock	155,000
Balsam Fir	...	100,000
Red Pine (very similar to Baltic Redwood)	...	75,000
Cedar	50,000
Tamarack	50,000
Yellow Pine (botanically of the same family as Pitch Pine but structurally similar to Baltic Redwood)	...	25,000
Jack Pine (an inferior scrubby pine)	...	17,000

IMPORTS OF HEWN, SAWN, AND SPLIT WOOD (EXCLUSIVE OF PIT PROPS) INTO THE UNITED KINGDOM DURING 1913.

1,241,212 Standards from Russia		
464,763	"	Sweden
107,079	"	Norway
35,064	"	Germany
249,685	"	U.S.A.
330,394	"	Canada
68,417	"	other countries
<hr/>		
2,496,614		

REVIEWS.

THE CONCEPTION OF ART.

The Conception of Art. By Henry Rankin Poore. Second Edition, revised. Large 8o. 1914. 8s. net. [G. B. Putnam's Sons : New York and London.]

It may be doubted whether books on the aesthetic theory of Art have any great practical influence on artistic production, either for good or evil. There have been so many of them, and they differ so much, and each author is so sure that he is right and that all other theorists are wrong, that they tend to cancel each other; and artists, if they read them at all, agree with or differ from the views expressed, and proceed

with their own form of art-production unmoved. Art, they think, is a matter of doing, not of talking ; and talk does not help much.

Such books are likely rather to be read by amateurs who are interested in art ; and they often are, in fact, very interesting reading, and may influence the views of the public as to what is to be expected from art, if they do not directly influence the work of the artist, and hence they may have a certain educational value. The book under notice may claim some favour on both grounds. Though not in a very good literary style—sentences are sometimes so clumsily expressed as to leave one a little in doubt as to the author's precise meaning—it is certainly interesting reading, and it contains a good deal of suggestive thought. The real merit of the book is implied in the opening sentences : “A work of fine art results when man expresses the quality of whatever he designs for his aesthetic and intellectual pleasure. Quality signifies essential character. Art is the expression of the essential character of a subject.” That gives the keynote of the author's argument throughout ; and it is a perfectly sound position. Art does not consist in the accurate representation of a subject (though that may be taken as a preliminary condition), nor in the choice of a subject as “beautiful,” but in the manner and the degree in which its essential character is expressed. It is not so much the question *what* is represented as *how* it is represented. And in emphasising this point of view we avoid entirely the endless and fruitless discussions with which mankind have vexed themselves in regard to the conditions which constitute beauty in a work of art. When we are told that the object of art is to produce what is beautiful, we are at once faced with the unanswerable question : “What is beauty ? How do you define it ?” And we find that no one can define it. As the author remarks on another page :

That beauty is the first cause of art is the confusing and confounding notion over which philosophers have wrangled from the days of Plato and Aristotle down to the last dictum by Tolstoy. . . . The artist does not set forth to create beauty, but rather to give expression to a thought or emotion. In moulding this in a manner which to his own mind is most effectual he falls back on certain intellectual processes expressed in the principles of art. This usually results in something which the world calls beauty, and the more skilful does his hand become in expressing his mind the more beauty does the work contain.

He had better have said “the more interest does the work contain ;” after dismissing “beauty” with costs he had better have avoided playing with the word again ; and “expressed in the practice of art” would have been better than “in the principles of art” ; “principles” is almost as elusive a word as “beauty.” The sentence is one of the examples of the fact that the author is not always very clear in expressing what one takes to be his meaning. But if one could once get into the head of the exhibition-going public that essential character and expression are the qualities that give value to a work of art, they would have a better idea than they seem to have at

present as to what makes the real difference, for instance, between a good and a commonplace picture.

Although beauty is indefinable and therefore not to be classed as the main object of art, we may very well feel that ugliness, if not exactly definable, is a quality that may be painfully felt, and that there are subjects which no amount of "essential character" in their treatment can reconcile us to. When Rodin chose to sculpture a nude woman (of the lowest type, too) in extreme old age, he gave us what none of us want to see, and what is much better covered up: no amount of "character" can make such a subject tolerable; it is an offence against good taste, and good taste counts for something in art. Concerning the inanities (or insanities) of the Futurists and post-Impressionists of to-day the author has much to say, and though he does not exactly defend them, and apparently regards it as a temporary aberration, he devotes to a dispassionate criticism of these absurdities far more space than the subject was in any way worth, in a manner which leaves one rather doubtful as to his critical balance of mind. Little attention is paid to architecture, and that little is rather in the direction of finding that architecture is too much hampered with considerations of utility to claim admission as an art, and that (contrary to an often expressed opinion) "Art is the handmaid of architecture and not basal." By his remark just previously, that when we enter a building "we find rooms for living, halls for entrance and exit arranged for man's convenience," we gather that he has no conception of the fact that there is an æsthetic element in planning; that an architectural design is really the outward expression of an idea in plan and section; and that an architecturally feeble plan will never make an architecturally fine building; but as the Council of the Royal Academy seem to be equally negligent and indifferent on this head, and evidently regard plan and structure as of no consequence in the illustration of architecture, perhaps one can hardly expect a literary writer on art to be better informed. In short, Mr. Poore does not quite realise what architecture means.

The book contains a good many explanatory illustrations, a rather mixed and eccentric collection; the place of honour as a frontispiece being given to a photograph of Carpeaux' "La Danse," a very fine and remarkable work, but hardly perhaps worth selection as specially typical of the triumphs of art. A minor defect in the book is that though there is a list of the illustrations there is no sort of index to the literary matter. The printing and make-up of the book is in every way creditable to the eminent publishing firm who issue it.

H. HEATHCOTE STATHAM [F.]

THE EDGAR CHAPEL, GLASTONBURY.

The Gate of Remembrance. By F. Bligh Bond, F.R.I.B.A.
So. 1918. Price 6s. net. [B. H. Blackwell, Oxford.]

This book purports to be "a record of remarkable archaeological discoveries directed by means of a

method of automatic writing scientifically applied." Both from a psychical and archaeological point of view it is of profound interest. It deals mainly with the discovery of the Edgar Chapel at Glastonbury Abbey.

The east end of the Abbey Church and its arrangement of chapels has for many years been a subject of controversy. Leland in his *Itinerary* says: "Abbate Beere buildid Edgares Chapel at the Est End of the Church, but Abbate Whiting performed sum part of it." Phelps in his *Somerset* shows a short projection at the East End with an apse, but calls it "the Lady's Chapel." A transcript of a report made to Queen Elizabeth by a Commissioner gives a series of measurements: "The great Church in the Aby was in length 594 as followeth: *The Chapter House*, in length, 90 foot. The Quier, in length, 159 foot; in breadth, 75 foot. The bodie of the Church, in length, 228 foot. The Joseph's Chapel, in length, 117 foot." The question in dispute was what was Leland's Edgar Chapel? Phelps' "Lady's Chapel"? the Commissioner's "Chapter House"?

In 1866 Professor R. Willis, in his *Architectural History*, came to the conclusion that there were five eastern chapels and draws the central one as projecting about 12 feet, which he supposes was Leland's Edgar Chapel. Mr. James Parker in 1880 inclined to the view that this Edgar Chapel was in the south transept, to the east of the nave. Professor Freeman believed that there was an eastern chapel of considerable dimensions, perhaps a Lady Chapel, but only expressed this view verbally at a meeting in the Abbey. In 1903-4 Sir William St. John Hope, arguing from William Wyrcestre's statement: "Spacium de le reredes ex parte orientali magne altaris sunt 5 columpnce seriatim et inter quamlibet columpnam est capella cum altare," thought that this meant four chapels against the east wall of the retrochoir, as at Abbey Dore. Finding no traces of foundations on excavating he concluded that there was no such extension of a central chapel. This seemed to settle the matter.

In 1907 Mr. Bligh Bond reviewed the whole question again. He studied all the available mediæval writings and those of the seventeenth, eighteenth and nineteenth centuries, and gave careful attention to all existing plans and sketches of the buildings. As a result he felt strongly that this Edgar Chapel which Leland spoke of as the work of two abbots must have been a work of some importance. But the available evidence could carry him no further. It was now that he determined to cultivate the imaginative faculty and to make use of a friend's powers of automatism. A series of sittings took place at irregular intervals and extend d from 1907-1911, 1912, and more recently. The method of procedure was to remain passive, avoiding concentration of mind upon the writing and to talk casually of indifferent matters. While his friend held the pencil, F. B. B. steadied the paper with one hand and the other he rested lightly on the back of his friend's hand. The result was a

series of most remarkable scripts, which are given at length in these pages. From these he learned :

(1) That Abbot Beere built a large rectangular chapel to the east of the retrochoir and called it the Chapel of St. Edgar.

(2) Abbot Whiting added to this an angular apse in the east wall of which was a door.

(3) The length of the chapel was 30 virgas or yards, and it was 27 feet wide, and of 4 bays.

(4) The windows were filled with blue glass.

(5) The chapel was vaulted with fan vaulting.

(6) It was approached from the retrochoir through an ante-chapel from which a stairway, divided by a handrail, led to the chapel beyond.

Excavation commenced in 1908 and the writer of this review was present at the first digging. He was astonished at the apparent ease with which Mr. Bligh Bond at once came down upon the S.W. angle of the west wall of the chapel, and remarked upon it at the time. When fully excavated (3) the internal length measurements proved to be 87 feet ; this, allowing for 3 feet for the thickness of the end wall, gives the 30 yards of the script. The clear internal width of the chapel between the footings was about 18 feet, and, as the footings were about 7 feet in width, the whole external width was about 32 feet. Measuring internally into the recesses of the windows would give us the clear internal width of 27 feet of the script.

(2) At the east end of the chapel were found the footings of an angular apse with a gap for a door at the east end.

(4) In the trenches were many remains of azure blue glass. (5) There was also found a vaulting boss on the back of which lines were scratched for the setting out of 12 ribs, implying a wheel of tracery between fans.

(6) The chapel proved to be 7 feet higher than the retrochoir, necessitating a slope or flight of steps, and amongst the *débris* close by was discovered a double-handed stone rail. Hence the excavations proved the correctness of the script. This is remarkable, to say the least of it ; but the sceptic or unbeliever is open to say the excavation was first made and this story trumped up to account for the discovery. Against this objection we have printed a letter from the Hon. Everard Fielding, Secretary of the Society for Psychical Research, testifying to the fact that the script had been seen by him some months before the commencement of the excavations.

But to convince the unbeliever Mr. Bligh Bond, with great candour, has published in this book the script referring to the Loretto Chapel. The only evidence for such a chapel is Leland's statement that "Bere cumming from his Embassadrie out of Italie made a Chapelle of our Lady de Loretta, joining to the North side of the body of the Church."

The script gives the further information that the Abbot, who was riding upon a mule, was attacked "by evil men," and the mule fell. He was in danger of

falling over a precipice and he called upon Our L^dy. He was saved by his cloak catching in a thorn tree. He then and there vowed that he would build a chapel to Our Lady of the Loretto on his return to Glastonbury. This chapel, the script informs us, was on the north side of the nave and measured 40 feet by 20 feet, with a door at the west end. It was built on a lower level than the church and was approached by a vaulted passage or cloister built against the west wall of the north transept. The style of its architecture was the new or Italian style of four bays, with a small eastern apse, and was modelled upon a chapel of St. Mark at Padua, situated near the Quay. It was vaulted with fans, and the foundations of the chapel lie beneath the bank on the north side of the Abbey Church.

No excavations have been yet made upon this site, but we at once ask, is there such a chapel at Padua ? Cesare Foligno does not refer to one in his *Story of Padua*, but an ancient map of the town figures a chapel of St. Mark not far from the river and near the mediæval bridge of St. Mathio.

It remains for this site to be fully excavated to prove the full importance of the script and Mr. Bligh Bond's whole theory. There are difficulties in the way of such an excavation, but none which cannot be overcome. The importance of the matter, both from a psychical and archaeological point of view, demands this excavation in the very near future, and it is to be hoped that full opportunities will be given for it.

In this book we seem to see the monks of Glastonbury, who loved their secluded stronghold of the Christian faith with a dynamic love, mourning over its present state, and watching with the keenest interest the work of those of to-day who care for its past history, and ready to communicate to them the story of its ancient grandeur.

Mr. Bligh Bond does not favour "the ordinary spiritualistic hypothesis which would see in these phenomena the action of discarnate intelligences from the outside upon the physical or nervous organisation of the sitters." Rather would he believe "that the embodied consciousness of every individual is but a part of a transcendent whole, and that within the mind of each there is a door through which Reality may enter as Idea, Idea presupposing a greater, even a Cosmic Memory, and involving wider fields and transcending the ordinary limits of time, space, and personality." In fact, that there is a great storehouse of Memory, the treasures of which are available to those who are in complete sympathy with any object and have exhausted all available sources of information. The Gate of Remembrance is ever ajar : let him who will and can enter in. Feed the imagination with truth and it will evolve truth. And through the door of truth may enter that which will guide us to a wider knowledge. Here we view at a distance wonderful vistas, and it may be that the author has shown to the student another store of knowledge yet untouched.

In reading this book we seem to see the great possi-

bilities offered to an imagination which has fed upon all available evidence. As we ponder over this evidence and endeavour to draw conclusions from it how often great ideas occur to us, "splendid guesses." May not these be no guesses at all, but truths conveyed to our memory from that great storehouse of Memory by unseen agencies? All who have worked and thought and trained their imaginations have been conscious of these new ideas. We may call them imaginative writers, we may dub their theories "pure imagination," but need we be surprised if, after all, they are nearer to the truth than we are? We are of the earth earthy: they have had the eye of their imagination opened and truths have been revealed to them which were hidden from our eyes. We realise this power in our poets and great preachers when we call them "inspired." Can we deny this same power to our archaeologists and men of science? Personally, I think not.

G. W. SAUNDERS (Rev.)

Martock Vicarage, Somerset.

PASTEL PAINTING.

The Art of Painting in Pastel. By J. Littlejohns, R.B.A., and L. Richmond, R.B.A. With Frontispiece and Foreword by Frank Brangwyn, R.B.A. 4o., Lond. 1917. 12s. 6d. net. [Sir Isaac Pitman & Sons, Ltd., 1 Amen Corner, E.C.]

"The Art of Painting in Pastel" is a book for students, written and illustrated by two well-known members of the Pastel Society, Messrs. J. Littlejohns, R.B.A., and Leonard Richmond, R.B.A. Both are experienced teachers, and they have produced an admirable volume which should prove a welcome addition to the art manuals already published by Sir Isaac Pitman & Sons. The plates are printed in colour, which preserves much of the delightful technique of the original drawings. They are accompanied by simple and lucid descriptions of the artists' procedure, and some helpfully illustrate the progressive stages of their development. Mr. Frank Brangwyn, A.R.A., has contributed the excellent frontispiece and a stimulating introduction, where he refers to the unrivalled merits of pastel as a means of recording the illusive qualities of nature. The two last chapters contain much practical advice and information on the preservation of pastels and on the choice of materials. The volume consists of 190 demy 4to pages comprising forty full-page illustrations in colour and fifteen in black-and-white. It is an attractive volume, and in view of the decorative possibilities of pastel, its study should appeal to architects.

HERBERT WIGGLESWORTH [F.]

THE LATE FREDERIC CHANCELLOR [F.]

By the death, on January 3rd, of Frederic Chancellor, of Chelmsford, the Institute has lost one of its oldest, if not its oldest member.

Born at Chelsea in the year 1825, the third son of

John and Rebecca Chancellor, he was educated at a private school at Kingston-upon-Thames, and subsequently went to the London University, under Professor Donaldson, where he obtained, in the term of 1844-45, the First Prize in the class of Architecture as a Science, and the Second in that of Architecture as a Fine Art. He continued his studies as a student of the Royal Institute of British Architects and served his articles with Mr. A. J. Hiscocks, an architect practising in the City and in Southwark. He subsequently worked in the offices of several London architects, the last being in that of Mr. Ewan Christian, the late architect to the Ecclesiastical Commissioners. Mr. Chancellor went to Chelmsford at the instance of the late Mr. Beadel in 1846, and was in partnership with him and his son, the late Member of Parliament for the Chelmsford Division, until 1860. In that year he opened offices in the City of London in conjunction with his Chelmsford business, and was in practice up to the time of his death, for the last twenty-two years being in partnership with his son, Wykeham.

During his architectural career he was very largely engaged in almost every description of work, including the building and restoration of upwards of sixty churches, about fifty banks in different parts of England, a large number of farmhouses and homesteads, very many parsonage houses and private residences, many schools of all descriptions, several corn exchanges, maltings, mills, blocks of dwellings for the working classes, technical laboratories, numerous cottages and other buildings.

In 1871, upon the passing of the Ecclesiastical Dilapidations Act, he was appointed one of the Diocesan Surveyors for St. Albans, which he held until 1902, when he resigned, being succeeded by his son. He was appointed architect to the Diocese of St. Albans upon the death of the late Mr. Joseph Clarke. He was elected an Associate of the Royal Institute of British Architects in 1864 and a Fellow in 1870; he was also elected a Fellow of the Surveyors' Institution in 1870.

Mr. Chancellor was one of the original promoters of the Essex Archaeological Society in 1852, and was a Member of the Council up to the time of his death. In 1890 he published an important work upon the Sepulchral Monuments of Essex, and contributed many articles upon churches and kindred subjects to the *Essex Review* and other publications. In 1854 he was elected a member of the Chelmsford Local Board of Health, and remained so until 1858, when he was appointed surveyor to the Board, which office he held until he resigned in 1865; he was re-elected to the Board in 1865, and continued a member until 1888; from 1882 he was Chairman of the Board. In 1888 the Queen granted a charter of incorporation to the town and the new authority superseded the old one. Mr. Chancellor was elected the first Mayor, and has been re-elected six times since, having been Mayor in the late Queen Victoria's Diamond Jubilee year and

in King Edward's Coronation year. He was elected an Alderman in 1891.

Mr. Chancellor was the first to sign the roll of the Chelmsford Volunteers in 1859 and passed through the various grades, retiring with the rank of Lieutenant-Colonel in 1892, when he was awarded the V.D. medal. He was a member of the Court of Assistants of the Coachmakers' and Coach Harness Makers' Company of the City of London, and served the offices of Junior, Renter and Senior Warden, becoming Master of the Company in 1878-79. He had been a Justice of the Peace for the County of Essex since 1889. He was co-opted by the Essex County Council to serve on the Technical Instruction Committee and at the time of his death was a member of the Essex County Education Committee. He had also been a Governor of the Chelmsford Grammar School, and was for some years churchwarden of the parish.

Throughout his long and active life there were few matters of local importance in which Mr. Chancellor did not take a leading part. Possessed of great business capacity and keen technical knowledge, as well as extraordinary powers of application, which, despite his great age, he retained to within a few months of his death, he was ever ready to assist in anything which tended towards the promotion of the interests and welfare of his town and county, and his loss will be widely felt.

WYKEHAM CHANCELLOR [F.]

Chelmsford : 1st February, 1918.

2ND LIEUT. WM. WYLIE HOUSTON, R.E. [A.]
Killed in action 17th August, 1917.

*"How are the mighty fallen—
Giving much glory
Unto the earth their mother,
But from me
Taking how much more glory,
The glory of friendship—
God of Battles,
What heart have I left for thee?"*

*"Beautiful in their lives
The singer telleth;
And in their deaths how splendid,
Oh, who can tell;
How in glorious death I love them,
How can I say—
I who in life
Loved them unspeakably well?"*—WEAVING.

So writes one of our young poets, of a friend who fought with him in France. Both tasted of the horrors of the war which is depriving us of so many noble young lives, lives for which great things had been predicted had the selfishness of those whose doctrine is that might is right not intervened and interrupted their peaceful careers. Such lives are not lost, their examples are an inspiration to those who follow, and such was the life of the late Wm. Wylie Houston, now "fallen, giving much glory unto the earth," his "mother, but from me taking how much more glory—

the glory of friendship." Certainly in life he was a true man, a trustworthy friend, greatly gifted, yet simple as a child and in his death how splendid!

In the October number of the JOURNAL a photograph of the subject of this sketch appeared, and as I came into close contact with him, both professionally and as a friend, I would ask the Editor's indulgence that I might mention some facts regarding his career.

He was born at Ashley Carnmoney, Co. Antrim, on the 23rd February, 1887. His father was Mr. Thos. Houston, J.P., a gentleman connected with the iron trade in Belfast, and who also owned large farms in the above county and for a lengthened period was a member of the Antrim County Council. His mother was a member of the Wylie family of the same county, the sister of five brothers who have attained distinction in the learned professions.

The officer whose loss I, in common with his many friends and professional associates, deplore was educated at the Belfast Royal Academy and afterwards at the Academical Institution. It was in connection with this latter school that his skilfulness in drawing first became manifest, and it was here that his career was chosen, for his father then noticed the trend of the boy's mind, when he saw some drawings he had copied, and he determined to educate him for the architectural profession. Subsequently he served his apprenticeship with Mr. Thos. Houston, Kingscourt, Belfast, and afterwards became his chief assistant.

It is unnecessary, here, to give in detail a list of the offices in which he served in Belfast, in Dublin, and in London, but in the course of a varied experience he came to the writer as his chief assistant, and he can testify that the profession has suffered a great loss, in fact all his employers looked upon him as a coming man. His skill as a draughtsman was almost unique, and some of his best work has been presented to Campbell College, Belfast, where it is to hang in the class-rooms as an example for such of the boys as are destined for an artistic career.

However, notwithstanding his rare skill and exceedingly hopeful prospects, he decided it was his duty to volunteer for the Army: no pressure in this direction was brought to bear on him by his friends. His conscience said, "Go," and he obeyed. Consequently he joined the O.T.C. at the Queen's University, Belfast, and was appointed 2nd Lieut. in the Royal Irish Fusiliers on the 8th January, 1916. At the Holywood school of instruction to which he was then sent the Commandant reported him to be "specially good at map reading and field sketching," and had hung up a plate of conventional signs drawn by him as an example of good work. Nor was his excellence from a military point of view confined to drawing alone. He was also distinguished for his marksmanship, and at the Newtownards range was awarded a medal for the second best score which at that time had been recorded.

I do not stop to notice the exchange into the Royal Engineers, a corps for which he was eminently suited, both by taste and attainments, and in which I am convinced, had he been spared, he would have risen to eminence. Instead, I close by a word on his character. Though gifted above many, no word of egotism ever escaped his lips. He bloomed in the shade. Everywhere he was liked, and I endorse with emphasis extracts from the letter of his superior officer, who wrote of his death :

"A great favourite."

"A splendid helper."

"A brave and gallant soldier."

"A good friend."

Belfast.

JAMES A. HANNA.

CORRESPONDENCE.

The Comacine Masters.

Eagle House, Wimbledon : 28th January, 1918.

To the Editor, JOURNAL R.I.B.A.—

SIR,—Professor Prior, in your JOURNAL of this month, alludes to what I said about the *Magistri Comacini* in my review of Mr. Porter's book. Like Professor Prior, I have since read Mr. Ravenscroft's book, and remain unconvinced. Beyond the fact that there was a Guild of Comacine Builders or Architects, we know next to nothing about them. That they were a survival of a Roman *collegium* of operatives is likely enough, but they would in that case be only one such society among many. On this slender foundation Leader Scott and Mr. Ravenscroft rear the stupendous theory that they were the centre of a system of craftsmanship to which we owe all the monuments of the Middle Ages, and were themselves the inheritors of the traditions of architecture from the building of Solomon's Temple downwards.

But why is Solomon's Temple taken as the fount of all subsequent great architecture? Of all the buildings of antiquity it was the least likely to found a school. In the first place it was architecturally quite unimportant in comparison with the colossal structures of Egypt, Assyria, Babylon, and Persia, and in the second it was the only ecclesiastical building of the nation, and, having nothing following to be influenced by it, no school of craftsmen could be founded upon it. The myth which makes Solomon's Temple the seed of future architecture may be set on the same level as that of the SS. Quattro Coronati, as told by Mrs. Jameson, and now again by Mr. Ravenscroft.

Leader Scott, if I remember, will have it that the title of *Magister*, or Master-Mason, means something more than the position of Architect, and signifies a formal degree in the Comacine mystery, like that in modern Freemasonry. But this is a very gratuitous assumption. "Master" in English, "Maître" in French, and "Messere" in Italian is the commonest courtesy title. One has even read of *Messer Domeniddio*!

And here comes in the question whether modern Freemasonry has ever had any connection with the craft of masonry, or whether the pretended connection is anything but symbolical and an allegory. As to that I say nothing, knowing little of the history of the craft. I will only point out that the word "free-mason" is common enough in old building accounts without any mysterious reference to a secret society. I quote the following from the building accounts of Wadham College, Oxford, where free-mason means a worker of free-stone as distinct from the ordinary mason whom we should call a waller or a setter :—

frestone masons	for working two lights of to taske	0	6	8
	windows			
	for 61 foote of window table at 3d. the foote	0	15	3
	for the freemasons in pte of paymt. for the gate	2	15	0
	for working a dore	0	8	0
frestone	Chillingworth for 24t and 5 foote of freestone	1	8	5
Walestone	Smedmore for 87 load of Rag- stone	1	9	0
Masons	Wm. Arnold's weekly wage	1	0	0
	Wm. Blackshawe, 5 days	0	8	4
	John Blackshawe, 6 days	0	9	0
	&c., &c., &c.			

Mr. Ravenscroft, who, by the way, makes almost as great havoc of his proper names as Leader Scott of her Latin, which is mostly unintelligible, is mistaken in his description of a fresco in the under church of St. Clemente, of which he gives an illustration. He says it represents workmen engaged on a building and being directed somewhat angrily by a *Magister*, who is named Sesinius. He even tries to detect the apron of the modern freemason under the toga of Sesinius. The real subject is quite different. Sesinius was the pagan husband of a Christian wife who sent his men to seize St. Clement; but they, afflicted like him with judicial blindness, mistook the column which they are dragging along for St. Clement. The legend is further illustrated by other frescoes on the same wall, and may be read in Fra Nolan's book on the Church, where is a better illustration of the pictures to a larger scale than that in Mr. Ravenscroft's work.—Your obedient servant, THOS. GRAHAM JACKSON.

Briancroft, Milford-on-Sea: 23rd Jan., 1918.

To the Editor, JOURNAL R.I.B.A.—

SIR,—It does not surprise me that Mr. Prior is not convinced by what I have written on this subject, although I scarcely think he will expect me to accept his "will-o'-the-wisps" designation any more than I can Sir Thomas Jackson's "Myth of the Comacines."

Indeed, one has wondered that more have not shared Mr. Prior's disappointment, for one of the reasons which led me to further study of the subject was that I felt, however firm my own conviction might be, my treatise was not overweighted with proof.

I claim, moreover, to be acquitted of going the length either of Merzario or Leader Scott, but all

this will come out in my further notes, now gone to press, and upon which, if I send you in due course a copy, perhaps Mr. Prior will do me the honour of his criticism.—Yours faithfully,

W. RAVENSCROFT [F.]

Priority of Building after the War.

98 Wimpole Street, W. : 22nd Jan., 1918.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Is there not something the Institute stands for higher than the interests of its members, even if they did suffer by the regulation of building after the war? What if the protest joins to those of architects the interests of the building trade? Do architects and the trade exist for their own sole advantage, or have they no responsibilities towards the State? Is the cause of the supposed intention of the Government to control building after the war based upon the belief that there will be a shortage of materials and labour? If not, for what other reason is such control likely to be instituted? If so, however, is it denied that there are grades of importance to the community in regard to the various classes of buildings waiting to be undertaken? Does the Institute seriously contest the allegation that working-class houses are needed by the thousand? If not, is it not more important to build them than to build anything else? May it not also be of more importance to the nation to give priority to the building of factories than mansions for those enriched by the war? Without some form of Government control, how is it suggested that such priority can be obtained?

The above are a few questions that force themselves upon me after reading the report of the discussion upon Mr. Wills's motion.

I venture to hope there may be many others who will profoundly dissent from the resolution, in spite of the large measure of unanimity it appeared to receive.—Yours faithfully,

FRANK M. ELGOOD [F.]

The Education of the Architect.

School of Architecture, University of Liverpool:
31st January, 1918.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I do not know whether Mr. Arthur Keen's letter on "The Education of the Architect"—published in your issue for January—may be regarded as expressing only his own personal opinions, or whether it is to be considered as a semi-official *démarche* on behalf of the present Board of Architectural Education. But in either case it clearly demands a reply.

I propose to take Mr. Keen's principal statements point by point and to answer them. Before doing so I would refer such readers as are interested to my original letter and to Mr. Keen's, published respectively in the December and January issues of the JOURNAL. They will then be able to judge for themselves:

(i) How far Mr. Keen may be held to have dealt with the questions raised by me in the first instance, and

(ii) The degree of accuracy with which I have represented his views in the italicised passages below.

The purpose of the Final Examination is to test a man's qualifications for practising as an architect.

This cannot be said to be achieved under the present system. A group of practitioners sit in London and conduct relatively brief and arbitrary tests. Candidates come before them from all parts of the United Kingdom. The examiners know nothing of the circumstances of the very varied training of those candidates: they have no direct knowledge of their abilities. All they know is that a professional Star Chamber, called the Testimonies of Study Committee, has at one time or another approved four designs submitted by each candidate; and that that Committee was itself also ignorant of the nature of the education of the authors of the designs and of the value which could legitimately be placed upon their work. Thus equipped, the examiners, apparently by a process of divination and clairvoyance, detect how much of any individual's performance in the Final is the product of cramming or may be ascribed to luck, and how much is evidence of genuine competence. A remarkable feat, but one fraught with over much risk for the person most interested in its successful execution. So conducted the Final Examination may prove many things—but not a man's qualifications for practising as an architect.

The Final R.I.B.A. is a professional, the Intermediate a non-professional examination.

A false theory of architectural education is here proclaimed: the old Victorian antithesis of theory and practice is implied. So long as this sectional view of the subject obtains, so long shall we fail to secure efficiency in the training of the profession. The work of education cannot reasonably be divided into two compartments—one "non-professional," partly controlled by experts who teach and know the capacities of their students; the other "professional," in the hands of amateur educationalists who merely examine and are necessarily without such essential information.

At present the number of professors or directors of schools who are voting-members of the Board of Architectural Education is less than one-third of the total effective membership: even if the schools dealt with the entire training of the architect, this would be a sound arrangement: but school training is only a beginning, and therefore the Board should consist mainly of those who have had long experience of practice.

In other words, empiric knowledge is to be considered as of more importance than scientific: and the exponents of empiricism are to dominate the final stages of qualifying education under all conditions.

Architectural education has not developed upon these lines in France or America, nor could it properly so develop anywhere.

It may be good polemics to represent the expert educationalist as a person imperfectly qualified to deal with concrete issues, but I submit that it is at the least a disingenuous line of argument to take. An extensive practical experience is not the exclusive privilege of architects who do not teach. Professors and directors of schools are normally free to undertake private work, and do so, often upon a large scale. Mr. Keen cannot be unaware of that fact. The head of a School of Architecture who has not sufficient practical knowledge to justify his acting as examiner for the R.I.B.A. Final must be in a condition of very remarkable ignorance.

To deny ultimate educational powers to architects who both teach and practise, and to confirm in possession of such powers those who perform the latter function only, cannot commend itself to an impartial judgment.

The Testimonies of Study Committee is a strong one and comprises some of the best-known men in the profession. To put the designs made as Testimonies of Study under the control of the School Professors would be wrong. The designs form part of a professional examination and should be judged by practising architects.

Mr. Keen is in a better position to estimate the strength of the Testimonies of Study Committee than I am. For he doubtless knows the names of its members; whilst I, like the rest of the profession, who lack private sources of intelligence, do not know.

Whatever may be its strength, however, it is the by-product of an obsolete system, and no confusion of the issue, by invidiously attributing to its members "professional" qualities, can justify its existence.

It would be useful to inform students of the reasons why their designs are rejected: but this course has been seriously considered and felt to be impracticable.

It would be more than useful—it would be sensible and just: and there would appear no explanation of this feeling of impracticability which does not reflect either upon the Testimonies of Study Committee or upon the Board of Architectural Education, or upon both, if both entertain it.

Students who have felt aggrieved by the decisions of the Testimonies of Study Committee have been interviewed and the reasons for not accepting their designs have been explained to them.

One would like to know the precise number of the appellants: the ratio of that number to the total body of rejects since the Testimony of Studies scheme came into operation: and finally the percentage of inquirers who travelled to London from the Provinces in order to satisfy themselves that justice had been done in their own cases.

It is probably a bad thing that the Schools seem impelled to work with one eye on the Institute Examination, but as this is actually the case the examination should be so shaped as to exert the soundest possible influence on education.

No examination conceived and directed by a centralised unrepresentative and mainly non-teaching body can under any circumstances exert other than a bad influence on education.

The remedy does not lie in tinkering with the examination, but in its abolition, in a reconstitution of the Board of Architectural Education, and in the establishment of a decentralised examination conducted through the instrumentality of the competent authorities at the teaching centres.

When the granting of qualifying degrees is on certain terms delegated to such authorities—as, in the case of the Profession of Medicine, it is by the British Medical Council—then there is some guarantee that the qualifications are of value. An Institute merely operating examinational machinery in the metropolis can offer no equivalent assurance.

To form the Board of Architectural Education into a kind of administrative body for the Schools would be an error. The individuality of the Schools is a valuable asset, and nothing should be done to impair it or to weaken the spirit of emulation that should exist between the various Schools.

Presupposing that the Institute utilised the Schools to prepare candidates for the profession and to control admission to it; and presupposing again that the Board of Architectural Education were reconstituted upon a logical representative basis, the functions of the Board would include:—

1. The setting up of a certain minimum standard for the Intermediate and Final Examinations and the enforcement of that standard.

2. The appointment from its own membership of external examiners whose business it would be to attend and assist at the examinations and to report to the Board.

The Board would, in short, possess an effective authority and would act as the General Council of Medical Education acts. This, so far from impairing the individuality of the Schools or weakening their spirit of emulation, would have precisely the opposite effect. The Schools of Medicine in provincial cities are famous: each one of them, though conforming to a general scheme of education, has distinguished itself in some particular branch or branches of medicine or surgery. As much cannot be said for the Schools of Architecture—nor ever will be, as long as existing conditions prevail.

The great strength of medical education, the confidence which it inspires, and the prestige which it gives are largely due to the broadness of its basis and the essential unity of its conception. It is not manipulated by a London club, nor are its professors considered incompetent to complete the processes which they initiate.

Lest Mr. Keen should think it necessary to point out that medicine and architecture are different subjects, let me say that the methods which most directly give effect to the fundamental principles of all qual-

fying education should be as applicable in one sphere as in the other.—Yours, etc.,

LIONEL B. BUDDEN [A.]

P.S.—As Mr. Millard's proposal (repeated and amplified by Mr. Keen), that the school directors should confer and lay their conclusions before the Board of Architectural Education, did not seem to have evoked any response, I had taken upon myself to write to Professor Dickie and to suggest to him that he should invite the heads of the schools at an early date to a conference at Manchester—the most generally convenient centre for the purpose. I understand now, however, that the Board is itself taking steps to summon such a conference.—L. B. B.

"Unity of the Profession"!

24th January, 1918.

To the Editor, JOURNAL R.I.B.A.—

SIR,—In these dull days I suppose we ought to be thankful for humour in any form, and the suggestion, under the above heading, of our amalgamation with the Society of Architects is too funny to pass without comment. I, for one, had not the slightest idea that such a subject would be discussed at a meeting called to consider "The Unity of the Profession," and should amalgamation be again considered might I suggest as more appropriate the title "High Explosives" or "The Camouflage of Registration"?

A pledge was given that this matter should not be discussed until after the war, and it was not worthy of our Council to sanction such a meeting and call it "informal." I protest against the report being printed in our JOURNAL; it is in large type, and in the most prominent position, and it is not stated that only about thirty men attended the meeting. While our Associates are fighting abroad, we must "play the game" at home. We ought to feel very grateful to Mr. R. Goulburn Lovell for his dignified and emphatic protest (see page 56).—Yours obediently,

SYDNEY PERKS [F.]

THE PROBLEM OF RENDERING WOODEN ENGINE-HOUSES SOUND-PROOF.

The following communication was recently received from Major Harry W. Taylor, R.E. :—

" In connection with some military work there are several petrol engines in wooden houses which are rather noisy. The engines are about 12/14 h.p., 3 and 4 cylinders, of high-speed type, operating dynamos (direct drive on crankshaft). The problem is to silence the noise of running and still retain a certain amount of ventilation.

" The engine-houses are about 14 feet by 12 feet by 8 feet high to eaves, with gable roofs and concrete floors. The walls are of 1-inch boarding on timber framework, while the roofs are of $\frac{3}{4}$ -inch boarding covered with waterproof roofing felt on the outer side.

" The present ventilation is obtained by means of a window hinged at top and opening outwards, but this is altogether unsatisfactory and must be changed entirely. The exhausts have been dealt with quite satisfactorily, and are nearly silent. What is wanted is some method (a) of reducing the noise of the actual working of the engine itself (if this be feasible); and (b) of rendering the wooden engine-house more or less sound-proof, while still securing some little ventilation, at or near the ridge for choice.

" Any advice or hints your members may be good enough to give as to the best way of rendering these wooden houses sound-proof or nearly so, *at as moderate a cost as possible*, would be very welcome."

The Council referred the matter to the Science Standing Committee, and the following recommendations, compiled by Mr. A. O. Collard [F.] from notes furnished by Mr. J. E. Franck [A.] and Mr. H. W. Burrows [A.], were forwarded to Major Taylor :—

" Isolate the concrete bed of the engine from the floor and foundation of the building by cutting a chase around the engine-bed concrete.

" Place beneath the bedplate of the engine a felt mattress, and, if the bed of the engine be hollow, fill in with concrete or hard wood, so as to obtain as large a bearing surface as possible.

" If possible, keep the holding-down bolts separate from the concrete, placing an iron washer beneath the concrete, and a soft wood or vulcanite washer between the bed of the engine and the nuts of the holding-down bolts.

" Try various methods of placing blankets over the engine and between the engine and the framework of the hut, so as to form a cushion or 'tea cosy' over the machinery.

" If possible, place a balk of timber under the engine-bed of concrete, through which to pass the holding-down bolts; the concrete bed lies on and holds down the timber.

" If ventilation be needed, place a revolving cowl on the apex of the roof, so that sound passing out may be disseminated in every direction."

Major Taylor, in acknowledging the receipt of these notes, says that he thinks the information given will be very helpful.

Heroes' War Memorial.—Sir Henry Jones, formerly Professor at the University College of North Wales, in the course of a recent address, said: "I would like all North Wales to join in the beautiful movement for the memorial hall at the University College of North Wales, Bangor, where the name of every North Wales lad that has fallen shall be inscribed, and where every child that has lost a father shall have an education for nothing. Scrap your little religious differences over that. The College is a national institution; the beauty of the building there now is almost unparalleled. We, as members of the Royal Commission on University Education, thought it the finest modern college building that any of us had ever seen."



9 CONDUIT STREET, LONDON, W., 16th February, 1918.

CHRONICLE.

The R.I.B.A. Record of Honour: Fifty-second List.

Fallen in the War.

ROGERS, 2nd Lieut. CECIL WALTER, Queen's Royal West Surrey Regiment, *Associate*. Died of wounds, 28th Dec. 1917. Aged twenty-eight.

2nd Lieut. Rogers was educated at King's College School, received his professional education at the A.A. Day and Evening Schools, was articled to Messrs. Warwick & Hall, and was an assistant in their office when war broke out. He joined the Artists' Rifles in September 1914.

QUEKETT, 2nd Lieut. JOHN, M.A., F.S.A., Black Watch. Wounded and reported missing last July; his body has since been found and interred.

2nd Lieut. Quekett was a pupil of the late Sir Thomas Drew. He was for some years engaged as special draughtsman on the *Builder*, and was architectural editor of the "Victoria County Histories."

GUTTERIDGE, 2nd Lieut. RICHARD HOWARD, Queen Victoria's Rifles, *Associate*. Killed in action 1st October 1916, in France.

BELL, Lance-Corp. EDGAR ALAN, Staffordshire Regiment, *Student*. Died of wounds, 4th January.

Lance-Corp. Bell, when war broke out, was in the office of Colonel E. A. Kirk [A.], of Leeds, and was a student of the Leeds School of Art. Being in the Yorkshire Hussars he was mobilised in August 1914 and was sent to France in 1915. Transferring to the Staffordshire Regiment, he was wounded in June 1916 and again in May 1917. It was from the effects of the latter that he died.

Military Honours.

BROWN, Lieut.-Col. JOHN, Northamptonshire Regt., *Licentiate* (of Northampton), who has been twice mentioned in Dispatches, in connection respectively with the evacuation of Suvla and the operations in Egypt and Palestine culminating in the first battles of Gaza, has been awarded the D.S.O. He is also the recipient of the Russian Order of St. Anne, with Swords.

ROSS, Corp. HUGH A., of the Topo. Section, H. 2, B.E.F. [A.]. Mentioned in Sir D. Haig's Dispatches, 17 December 1917.

KEYS, Captain P. HUBERT, Royal Engineers [A.]. Mentioned in Dispatches 17th December 1917. Awarded Military Cross for gallantry in the Field.

BARROWCLIFF, Captain A. M., B.A., *Student*. Awarded the Military Cross in August 1916.
PIGOTT, Lt. (Acting Capt.) R. MOUNTFORD, R.E. [A.]. serving in Palestine. Mentioned in Dispatches, 17th December 1917.

Serving with the Forces.

Intimation has been received that the following are serving, bringing the total to 79 Fellows, 536 Associates, 333 Licentiates, and 300 Students:

FELLOW.

Chatterton, Fredk.; Lieut., Staff of Director of Works, Egyptian Expdy. Force.

ASSOCIATES.

Clarke, J. D.; Lieut., R.N.V.R.

Vinden, G.; 2nd Lieut., Royal Engineers.

Thompson, C. W. W.; 2nd Lieut., Royal Engineers.

LICENTIATES.

Baker, H. G.; 2nd Lieut., Royal Flying Corps.

Masey, F. W.; 2nd Cape Corps.

STUDENT.

Francis, B. T.; R.N.A.S.

Informal Conference Postponed.

It has to be mentioned that the Council felt themselves obliged to postpone the Informal Conference with public men and writers on the subject of "The Need for a National Policy of Town Improvement" which had been fixed for the 13th February. Several distinguished public men who were expected to take part in the Conference found themselves unable to attend at the time fixed, and circumstances not admitting of a change, the Council deferred the Conference until more convenient arrangements could be made.

French Honours for an English Architect.

By his unanimous election as "Membre Correspondant de l'Institut de France" Mr. John W. Simpson [F.] is the recipient of the greatest honour the Académie des Beaux-Arts can bestow on a foreign architect. An American painter and an Italian sculptor were elected at the same time. The vacant seat now filled by Mr. Simpson's election was formerly held by Von Ihne, the Imperial Court architect and designer of the Kaiser-Friedrich Museum at Berlin.

OBITUARY.

Sir John Wolfe Barry, K.C.B., F.R.S., twice President of the Institution of Civil Engineers, who died on the 22nd January at the age of eighty-one, had been an Honorary Associate of the Institute since 1877. The youngest son of Sir Charles Barry, architect of the Houses of Parliament, and brother of the late Charles Barry, a Past-President of the Institute, he was born in 1836 and was educated first at Glenalmond College and subsequently at King's College, London. His engineering pupilage was served in the office of Sir John Hawkshaw, with whom he was associated upon many works, especially in the construction of the Cannon Street and Charing Cross railways and the Thames bridges connected therewith. He began

practice on his own account in 1867 and quickly came to the front as a railway engineer. He was consulting engineer for several railway concerns, including the Caledonian, the Lanark and Ayrshire, the London, Chatham and Dover, and the Metropolitan and District Railways; also for the Shanghai and Nanking, and various important Indian railways. He was the designer and acting engineer of the Barry Docks and Railways, the Grangemouth Dock, the Surrey Commercial Docks, the Newport New Alexandra Dock, the Middlesbrough, the Hull Joint, and the Hambleton Docks; also of the Natal Harbour works, the Tower Bridge (in conjunction with the late Sir Horace Jones, the City Architect), the New Bridge at Kew, and the railway bridge over the Thames at St. Paul's Station, Blackfriars. He was greatly interested in the improvement of London traffic conditions and was a member of the Royal Commission appointed to consider and advise on the matter. He was one of the founders in 1901 of the British Engineering Standards Committee, from which numerous sectional committees and sub-committees have resulted. Keenly interested in engineering education, Sir John was instrumental in getting established the examinations held by the Institution for Engineers for twenty years Chairman of the same. He was also Chairman of the Executive Committee of the City and Guilds of London Institute, and Chairman of Westminster Hospital. In 1894, on completion of the Tower Bridge, he was made a C.B., and in 1897, in recognition of his valuable public services, was created K.C.B. Only a few months ago Sir John presented to the Institute an interesting relic in the shape of a pair of compasses used by his eminent father, Sir Charles Barry, up to the time of his death in 1860. A double interest now attaches to the relic, for since that time until their presentation the compasses had been in everyday use by the no less eminent son, Sir John Wolfe-Barry.

MINUTES.

At a General Meeting (Business) held Monday, 4th February, 1918, at 4 p.m.—Present: Mr. Henry T. Hare, President, in the Chair; 18 Fellows (including 15 members of the Council) and 3 Associates (including 2 members of the Council)—the Minutes of the Meeting held 7th January, 1918, having been published in the JOURNAL were taken as read and signed as correct.

The President announced that since the last meeting news had been received that the following members had fallen in the war: 2nd Lieut. Cecil Walter Rogers, Royal West Surrey Regiment, Associate, elected 1914; 2nd Lieut. Richard Howard Gutteridge, London Regiment, Associate, elected 1914; Lance-Corp. Edgar Alan Bell, Staffordshire Regiment, Student. Upon the motion of the President, it was RESOLVED that the deepest regrets of the Institute for the loss of these members be entered on the Minutes, and that a message of the Institute's sincerest sympathy and condolence be conveyed to their near relatives.

The decease was also announced of Frederic Channer, elected Associate 1864, Fellow 1870, and a, and condolence was passed to his son, Mr. Wykeham Chancellor [F.], of Chelmsford.

It was announced that the following gentlemen, who had passed the qualifying examination, had been nominated for election: As FELLOWS, Sydney Kyffin Greenslade (Pugin Student 1891, Associate 1892, Grissell Medallist 1897, Godwin Bursar 1900); Edward Lewis Harrison, Licentiate; Gerald E. Jones, Licentiate, and Arthur J. Stedman, Licentiate; as ASSOCIATE, Kenneth Cameron, 2nd Lieut. R.E.; as HON. ASSOCIATE, Francis Seymour Leslie, Colonel, R.E., retired.

The President announced that the Council proposed to submit to the King the name of Mr. Ernest Newton, A.R.A., Past President, as a fit recipient of the Royal Gold Medal 1918, for the excellence of his work as an architect.

The proceedings terminated at 4.10 p.m.

NOTICES.

A SPECIAL GENERAL MEETING will be held Monday, 4th March 1918, at 4.30 p.m.

To elect the Royal Gold Medallist for 1918. The Chairman to move "That subject to His Majesty's gracious sanction the Royal Gold Medal for the promotion of architecture be presented this year to Mr. ERNEST NEWTON, A.R.A., in recognition of the merit of his executed work."

A GENERAL MEETING (BUSINESS) will be held at the conclusion of the above for the following purposes:—

To read the Minutes of the General Meeting held 4th February 1918.

To proceed with the election of candidates for membership [*the names are set out under "Notices" in the January issue of the JOURNAL and in the Minutes of the Meeting of 4th February printed above*].

The following Resolution will be moved on behalf of the Council: "That in accordance with the provisions of Clause 33 of the Charter application be made to the Privy Council to sanction the suspension of the By-laws governing the Annual Election of the Council, the Standing Committees, and the Hon. Auditors, so that the Council, the Standing Committees, and the Hon. Auditors elected in June 1917 shall remain in office until the 30th June 1919, provided always that the Allied Societies and the Architectural Association shall be represented on the Council by their Presidents in accordance with the By-laws."

Informal Conference, 13th March, at 3.30.

NATIONAL HOUSING AND NATIONAL LIFE.

Discussion to be opened by Professor ADSHEAD.

York and East Yorkshire Architectural Society.

In the recently issued Supplement to the *Kalendar* the names of some of the Officers and Council of the above Society are omitted. The following is the complete list:—

†T. W. Whipp [A.], President; *A. B. Burleigh [Licentiate], Vice-President and Acting Hon. Treasurer; *William Bell; *George Benson [A.]; *C. H. Channon [F.]; John Ferguson [Licentiate]; Llewellyn Kitchen [F.], Hon. Corr. Sec., Hull District; Alan E. Munby, M.A. Cantab. [F.], Vice-President; S. R. Kirby [Licentiate]; *S. Needham [Licentiate]; *A. Pollard [F.]; †Ernest A. Pollard [Licentiate], Hon. Treasurer; J. E. Reid [Licentiate], Acting Hon. Secretary; †E. F. R. Sample, Hon. Secretary; J. Stuart Syme [Licentiate]; E. Ridsdale Tate [Licentiate].

* Past Presidents.

† On active service.

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SCULPTURED ABACUS IN CLOISTER, TARRAGONA CATHEDRAL.

GEORGE EDMUND STREET'S SKETCHES AT HOME AND ABROAD.

By WALTER MILLARD [A.]

THE sketch-books of the late George Edmund Street, R.A., presented to the Institute by Mr. Arthur Edmund Street [F.], to which allusion has already been made in the JOURNAL,* are five in number, spreading over a period of some thirty years ; one of a tour in Germany and Switzerland made in 1851, three of tours in Spain in the course of the years 1861-2, and another of a tour in our own country during 1880, the last year but one of Street's life. In the case of the earliest of these books the interest it might hold for us is eclipsed by that aroused in the case of the four others. The sketches in this book, being made in pencil on ordinary hot-pressed paper, are slightly woolly in touch compared with those in the next-mentioned books done on a harder and finer surface. This may seem a point of small consequence ; yet, to a draughtsman of Street's temperament, it was a point that did matter. In the smoother "metallic" paper of the three Spanish books it is evident that he had found a material responsive to the touch of his lead pencil-point, however lightly or forcibly it might be impressed, however swiftly or deliberately. The subjects with which this earliest book is filled range through a little over a week's travelling, from Nuremberg to Freiburg. Beginning at Nuremberg, on 4th September, he was sketching at Constance by the 10th, after having taken Ratisbon and Ulm on the way. At each of these two latter places he notes down in words the general plan and disposition of the cathedral building but the actual sketching done proves to be rather of the go-as-you-please order, by practice rendered so familiar to many of us ; that is, the delineation of bits of buildings, parts, features and furnishings of various buildings met with, notably stall-work and stained glass in this particular case. The pursuit of a more definite and systematic line of architectural study is evident in the sketch-books that follow.

The three volumes containing sketches and notes made in Spain have a unique value for students of architecture, since, so far as they cover the ground, they comprise the very origins and foundation of their author's highly important work, *Gothic Architecture in Spain*, published in 1865. From this book Fergusson borrowed freely for his Spanish chapter, reproducing from it eight plans of churches and some dozen views. In making full acknowledgment of his own indebtedness to "Mr. Street's beautiful work," he adds, "His work is a model of its class, and has quite revolutionised our knowledge of the subject." Here, in these sketch-books, we find, in the freshness of their original pencilling, the actual plans and views with which we have been made familiar by woodcuts.

Sketch-Book, Vol. I., 1861, opens with sketches of detail from Notre Dame, Paris, dated 5th September, followed by others made next day at Bordeaux, of city gateways and cathedral tower. At Bayonne, on the 7th, Street took a sketch-plan of the cathedral and drew cloister fenestration, with cusped tracery, which must have struck him as a parallel to like work at Westminster and Salisbury.

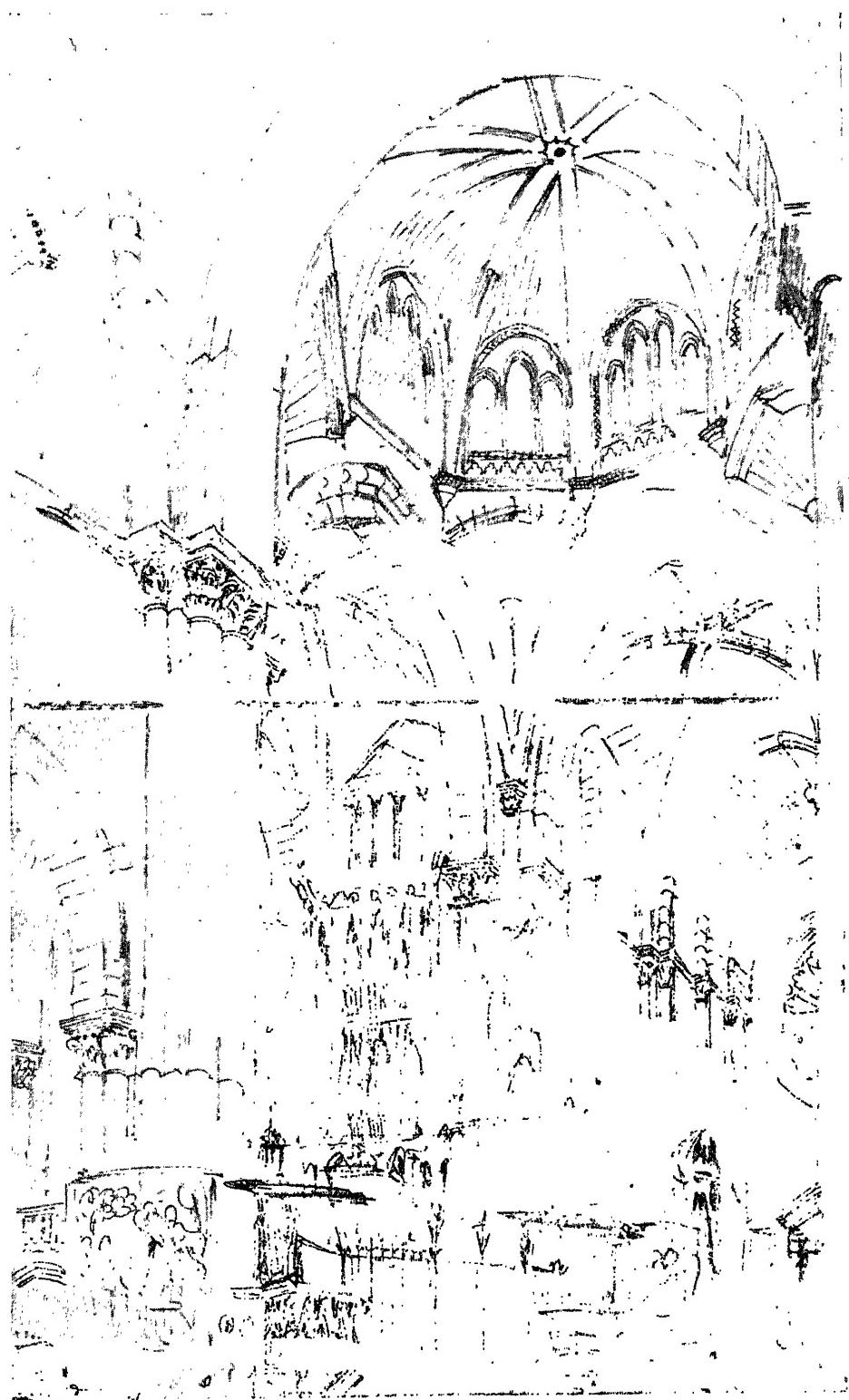
* 25 Nov. 1916.

By the 9th of September he was across the Spanish frontier and at work in Burgos, making a measured plan of the cathedral. In the cloisters there he found another example of traceried work to compare with that at Bayonne. A plan and sketches follow of the church of St. Esteban, also of the church of St. Gil, where the wrought-iron pulpit comes in for a sketch. On the 10th he writes : "A day and a half at Burgos have impressed me most pleasantly in every way. The cathedral is equal to my expectations." He was at work in the conventional church and cloister of Las Huelgas on the 11th, and next day at Palencia, where the cathedral and the church of St. Miguel afforded subjects. By the 18th he had reached Valladolid, and here, as at Burgos and elsewhere, started work at one example after another by taking a plan of the building. "Without ground plans," he observes in his published volume, "it is impossible to understand any descriptions of buildings." Thus, with accompanying sketches, the churches of St. Benito and Sta. Maria Antigua are recorded.

Street had reached Madrid by the 14th, when he remarks of the Museo, "It is in most respects the best gallery I have ever seen. We went twice, and I should have liked to stay longer at Madrid and go again and again." From a picture there by J. Van Eyck he extracted some interesting detail. Then comes a note, "I went with 11,999 others to a bull-fight—saw six bulls killed." After that, on the 17th, he got away to Toledo, where evidently he was once again in his element ; for next morning he writes, "In the cathedral soon after 6 a.m. and had two hours' work before going to breakfast." The series of sculptured-panels on the screens behind the choir-stalls claimed his attention, and he seems to have sketched all the panels on the south side. Two days later he records, "To cathedral, 7 a.m., but found it too dark to sketch subjects on north side of choir. Must not complain, every window full of rich stained glass." His drawing of these sculptures, in its simple directness and firm handling, is a model of what such work should be. At Toledo, Street came in contact with Moresque building-forms, several instances of which figure in his sketch-book. And these are not all of them purely secular subjects ; for, strange as it may sound, the architectural expression of the Moslem invaders long survived their expulsion and for more than another century continued to assert itself actually in the very church structures of their conquerors. Evidence of this lies before us in sketches here, showing multi-foiled arch-forms and other marked characteristics, from more than one church, and even from the cathedral itself. On the 20th a note is made, "Travelled all night to Valencia."

Sketch-Book, Vol. II., leads off with a plan of the cathedral at Valencia. Two days later Barcelona is reached and again a plan is taken of the cathedral, and a section also, together with interior and exterior views, besides many details of piers and arches, all mutually explanatory of the structure as an organic unit. "I was charmed," he says, "to find so noble and complete a church here." A plan, too, was drawn of the fine church of Sta. Maria del Mar, as well as interior and exterior views. Leaving Barcelona on the 25th, the traveller gets to Zaragoza on the following day, and on the 27th he writes, "Out this morning at 6.30 to make the most of my time." At Lerida and Manresa fine subjects were tackled, only too hurriedly ; and then came Gerona. Here Street writes, "Our first visit was to the cathedral. The west front promised nothing as we went up the steps. What our surprise was when we opened the door and found ourselves inside the nave I can hardly say. I was so struck by the enormous width that I stepped it and found it to be 75 feet in the clear ! This is the greatest span I have yet seen, yet the whole stands perfectly and with scarcely a settlement. The most remarkable thing is that this wonderful and spacious nave opens into a choir and aisles with chapels round it, and together just occupying the east end of the nave, into which they open with three arches. The effect is grand in the extreme." Of this work a measured plan is duly made and an interior view, which figures in Fergusson's chapter.

By the end of the month the frontier had been re-crossed, and Perpignan reached. There follows an important series of sketches from Elne, Narbonne, Carcassonne, Villefranche, Toulouse, Montmajour and Arles ; and then, under the date 6th October, comes a sketch made at the Hotel Cluny, Paris, just one day over the month since our travelling-student had begun work, in his Sketch-Book, Vol. I., at



TARRAGONA CATHEDRAL : VIEW ACROSS TRANSEPTS.

Notre Dame. His Vol. II. closes with sculpture from the west portals at Amiens, drawn as he had drawn that at Toledo, with clean incisiveness and complete mastery. A note made of detail at St. Martin's Priory, Dover, marks his return home.

In the following year, 1862, Street was back in Spain as early in the season as May. Again he was attracted to Gerona, which he reached on the 25th; and after that came Barcelona once more, then Tarragona, Manresa, Lerida, Huesca, and Zaragoza. By June 2nd he was at Tudela on his way back, *via* Olite and Pamplona, to the frontier. This second tour was only about half the length of the first. A third and last one undertaken for the sake of his Spanish book, is not represented in this collection. It embraced the north-west district as far as Santiago di Compostella.

From June, 1862, to August, 1880, is a long interval; but when we come to the next sketch-book that we possess, of the latter date, we can detect no sign that the hand which had done the sketches in Spain had lost aught of its cunning. It may only be noted that a return is made to Whatman's hot-pressed paper. This sketch-book, of 1880, is filled with subjects in this country, extending from Bradford-on-Avon through Somerset and Devon, during August; and then, in September, comes a northern series proceeding through Cumberland, Yorkshire and Cheshire.

Each of these sketching-trips appears to have occupied about the inside of a week. The sketches made in the first week, at Bradford, Bruton, Brympton, Montacute, Barrington Court, Forde Abbey, and Ottery St. Mary, amongst others, finishing up with subjects of his own creation, viz., the church he had built at Minehead and his nave at Bristol, evince all the artist's old power behind the pencil. The sketches made the following month, in the north, start with the west front at Lanercost, against which is the note, "How much subdivision in small width!" Bolton Castle and Mount Grace Priory, in Yorkshire, also the city of York itself, afford further good subjects.

About Street's architectural tours we may certainly say that there was something of the zest of adventure combined with high seriousness of purpose on his part to accomplish the utmost of which he was capable, under given circumstances, in the reading of the works of the past that lay in his way, like documents, so to speak, awaiting decipherment and interpretation. Clearly, he was not out just to fill sketch-books, though he filled many; but, with the true instinct of a student, he drew things that he cared about because he cared about them and wanted to know all he could get to know about them, not for the sake of the pictures they might present on paper. His sketches were made as studies for his own purpose and not for show, still less for reproduction in facsimile. He had no time to spare for overmuch playing with his pencil, and he never fumbled with it. Fastening on the salient points of his subject, and ignoring non-essentials, he would mark down with prompt decision and with precision just what he wished to record, and no more. He seized on what he wanted, on what to him signified, and drew it—and it alone. Whatever parts of any particular subject might be left unrepresented in his sketch, those things he did indicate would still come in their right place on the paper in relation to the whole, however slightly they might be suggested. Whilst he was at it his head as well as his hand were at work, and the discriminating process of selection and elimination went on continuously. As for the workmanship of his sketching, we find that, no matter how intricate in plan may be his subject, how sharp the perspective, or how difficult the view, nearly invariably arches and vaulting, caps, bases, and plinths, tracery also and high buttress-tops, all come out faultlessly in—drawing; and this in cases where he must almost certainly have sketched standing, * as an architect would, if necessary. Free and fearless might be apt enough terms to apply to his handiwork, perhaps it would be even still better described as incisive and masterly.

As a young man Street fell in with the rising-stream of outdoor sketching and study of remains of the past which he must have found running at good flow in Scott's office, when he entered there, in 1844. For, this office, where he spent some five years as an assistant, proved a veritable school of architectural sketchers; as his own office, in its way, was destined to become in turn—an assertion which

* I have it on the best authority that, as regards standing to sketch, he did so habitually.

sketch-books of Norman Shaw's, recently presented to the Institute by Mrs. Norman Shaw, go to substantiate. The early imbibed impulse to study and to sketch what we like to call old-work never weakened with Street. We read of its being implanted in him as a boy by the example and encouragement of his elder brother. It remained his recreation, and much more than mere recreation, to the last. All along it served him as an aid to his life's work, not just because this old-work was old, but because, as being the work of past-masters in building, it held a message for him as an architect. To the very end of his life he loved to scour the country, this country and other countries too, with an eye on the surviving examples of old building-work, mediæval in particular, and especially on its definite architectural forms, features and details; work that spoke to him and to which he responded.

As no two students of architecture following the same route could be expected to view with equal eye each identical piece of building-work they encounter, or to draw from it precisely the same lesson, so also can no exact agreement be looked for as to methods of procedure in making their studies of the work. Thus, even within the comparatively limited field of mediæval art, there soon proved to be room for at least two schools of thought regarding the lines on which its investigation should be pursued by our architectural students. The sketchers and the measurers, as these two schools respectively came to be labelled—with inexactness common to all such systems of labelling—may be said to have each produced its champion, or at any rate typical representative, in the person of Street, as a sketcher of old-work, and Burges, as a maker of measured drawings from it. Not, of course, that either of these really confined himself to one method of expression in his architectural studies, as his label would require had it been an exact one; but, still, there undoubtedly was a generally recognised divergence of view; and this difference we may regard as virtually being brought to an issue by Burges. Street, Nesfield and Norman Shaw, not to name others, had already published volumes, in which pictorial views of architectural subjects very largely predominated over illustrations to-scale, when Burges, in 1870, brought out his Folio Vol.* of measured drawings, and in the Preface to it sounded this warning note to would-be students of architecture :—

"When a pupil I was taught that the proper way to study was to draw rough perspectives in a little sketch-book, accompanying these rough perspectives with small drawings of the details and a few measurements. The great object was to fill the sketch-book, and then on return to town the perspectives were to be drawn out more carefully. . . . Each of us tried how many more sketches he could make in a day than his companion. On return home these sketches were cleaned up, had their margins cut, and were pasted into nicely-bound scrap-books and reserved, as a very cynical friend used to observe, 'for the inspection of parents, friends and idiots.' . . . Luckily for me, my cynical friend did not cease to ask, why I drew this sketch? Of what practical good was that detail? Why had I not drawn the full-size curves of some particular moulding? I forthwith made up my mind to turn over a new leaf and to take an opportunity of measuring and, as it were, dissecting the best French architecture of the thirteenth century I could find. . . . I set myself to write a sort of grammar of thirteenth-century architecture and to illustrate it with carefully measured details. . . . On my return to England I had a very different collection of drawings from that which resulted from my former travels. The inaccurate and often careless sketches had given place to documents; but it must be confessed that these latter had but little attraction for the outer world. . . . But to myself they were very valuable, for they had taught me the why and wherefore, which is the base of all architectural knowledge."

It may be observed that the years when Burges was a pupil to Blore, who held the Surveyorship to Westminster Abbey, coincided with some of those spent by Street in Scott's office, so that teaching as to the proper way to study would probably, in these two leading offices, be much the same for both young men. However this might be, Burges's warning note some twenty years later did not come at all too soon, in view of certain developments in the meantime. But it fell to a great extent on deaf ears. There was danger, indeed, lest the accomplishment of architectural sketch-making, that most alluring of short-cuts to success in an architectural career, should be deemed sufficient in itself for the turning out of trained and accomplished architects. Again, in these latter days, has the danger signal been repeated; for have not we, too, heard the cry? "Burn your sketches; better still, make none!"

Yet, widely as our two leaders may have appeared to differ in their individual ways of pursuing their studies from architectural remains, they agreed to the extent of giving proof, as architects, of

* *Architectural Drawings: Measured Examples from France, England, and Italy, illustrating 13th Century Work,* by William Burges.

sound learning and true scholarship ; and possibly, at bottom, they were not so very far asunder after all in their beliefs. Each, as an outdoor student of architecture, would proudly claim to stand in the line of succession from Villars de Honnecourt, architect of the thirteenth century, whose vellum sketch-book has come down to us, a witness to continuity in the pursuit by architects of outdoor study direct from standing examples of building-work. They were both students of great faith, and each after his manner went about the getting of the knowledge and the inspiration that he sought—in a word, pursued the business of working-out his own salvation as an architect—with a singleness of aim and fixedness of intent that are beyond comparison with a great deal of our architectural sightseeing and posy-gathering since their day. This much for certain they can be said to have held in common—viz., a firm belief in the essential need for the architectural student really to learn first-hand from structure itself something of the work of his forerunners in the art of building-device. And this has become a very corner-stone of our faith in regard to the training of recruits to the architectural profession. However great, or however little, may be the weight allowed to the authority of old-masters in present-day schools of painting for instance, we, at any rate, in our schools of architecture can no more divest ourselves of our inheritance from the past than we could, if we would, divest ourselves of it in the case of language, of literature, or of law ; and the difference in value between first-hand and second-hand acquaintance with ascertainable fact hardly needs to be emphasised.

Looking over these Spanish sketch-books, and reading the notes interspersed with the drawing, one cannot fail to observe how, with an architect's insight, Street regards building after building, that he takes count of, as a structural unit to be investigated as such and not just treated as a quarry to be ransacked for specimens ; a unit to be viewed and comprehended as a whole, as it stands and as it has come into the shape it holds. It was for this that he filled his sketch-books, being a student who wanted to know and determined to see and to find out for himself. Having got down on paper a plan, and if possible a section, of a particular structure, to explain the general make and fashion of the thing, or perhaps its growth through long years, his further studies of parts and aspects of it then fell naturally into their proper place in the survey. Not that he stayed, of course, in every case to complete such a survey in his sketch-book ; but we may feel pretty sure that each building noted was surveyed as a whole mentally, judging from those examples best worth record that he could find opportunity to dissect and display on paper. In viewing thus the work of the past, true archæologist as he was in his regard for it, he could not have failed to be mindful all the time of the work which he felt lay before him to do. It would surely be in good hopes of gaining light by which to discern his way ahead that he looked back reverently upon the achievements of his forerunners in building.

As evidence that Street, for all his sketching propensities, by no means neglected the practical and structural side of building-study we need only turn to his Paper on *English Woodwork in the Thirteenth and Fourteenth Centuries*.* This Paper, he told me, with a gleam of humour in his blue-grey eyes, had by him as a student been submitted unsuccessfully for the Institute Essay Medal. The author bided his time. Some years passed, when one day he found himself invited by the Council to read a Paper before the Institute. To this invitation he responded with his best attempt, on a subject of his own choosing. At the close of the discussion on this, in acknowledging the vote of thanks and all the nice things just said about his effort, he gently disclosed the fact that he had now, a second time, submitted for the verdict of the Institute his original Paper, unaltered, on Mediæval Carpentry in England, which before had not succeeded so well in finding favour in the eyes of the authorities.† By that time he was a Vice-President. It was in this Paper that he gave expression, as an Englishman, to a sentiment which still to-day would meet with a responsive echo. After quoting Viollet-le-Duc to

* Reprinted in R.I.B.A. TRANSACTIONS, Vol. V., New Series.

† I am bound to say that no record of this little episode appears in the printed Transactions ; but my recollection is perfectly clear as to the substance of what Street himself told me.

the effect that, to see open-timber roofs you must go to England, he remarks, "Our insular pride is of no new birth, and was as strong and decided five hundred years ago as it is now."

His truly British tenacity of purpose and power of making long-sustained effort seem to have confirmed him in the habit, never relaxed apparently, of getting through in a given time the very maximum, whether of work or travel. He so liked to "get along." I remember how, in one of his lectures to us students at the Royal Academy, he made mention casually, as it might seem, yet with intent, I felt sure, of the fact that, one day shortly before, he had happened to be in the cathedral of Amiens and then, next morning, found himself in that of Exeter; proceeding, of course, to make the inevitable comparison between these two works. Another illustration occurs to me of his customary carefulness about the utilisation of time and opportunity. Having occasion to send me down to Coventry for the day, to obtain some measurements, he genially added to his instructions, "If I were in your place I should go down by the newspaper train and so get for myself, after finishing my work, all the spare time I could have in that old city." He seemed to know of, and doubtless did know, most good things in the shape of architecture in all parts of the country, and in this knowledge he took some pardonable pride; so, I could not help feeling mildly moved to smile whilst noting his frame of mind on my telling him, concerning a particular tour which he had most readily and kindly planned out for me, that I proposed to amplify this programme by starting work at Maldon, in Essex, where, according to Murray's Guide, I should find a thirteenth-century church steeple which was triangular on plan. "I never heard of it," he snapped out. "However, you may go and see. I daresay it's all a hum." I did go, and had the satisfaction of making measured drawings of that steeple.

One display of Street's sketching powers, not readily to be forgotten by those who witnessed it, was the illustration by his own hand, with chalk on the blackboard, of a lecture that he gave to the St. Paul's Ecclesiastical Society, on English mediæval mouldings. From beginning to end the demonstration kept pace with the delivery of the address. Truly it was an effort that seemed to call for some kinder fate than to be wiped out with a duster.

He must have been on his very last Continental tour, perhaps his last sketching-trip of all,* when my friend, Leonard Stokes, and I, in the summer of 1881, arriving at Limburg-on-the-Lahn, found that we had just missed him there. It would have been a new experience for us could we have watched him at work—this time not at the drawing-board—facing some subject of his choice sketch-book in hand.

[NOTE.—The illustrations on pp. 97 and 99 were reproduced from one of the Sketch-books some time ago when it was intended to give several more. The idea, however, had to be abandoned owing to the great advance in the price of blocks.—ED.]

* His tour was planned as follows, but circumstances necessitated its curtailment by the omission of the four places last-named :

June 18.—Limburg-on-Lahn.
,, 20.—Eisenach.
,, 22.—Erfurt.
,, 24.—Naumburg.
,, 27.—Leipzig.
,, 29.—Dresden.

July 2.—Berlin.
,, 4.—Stralsund.
,, 7.—Magdeburg.
,, 9.—Halberstadt.
,, 11.—Hildesheim.

GRAPHICAL CALCULATION OF BENDING MOMENT IN CONTINUOUS BEAMS.

By JOHN H. MARKHAM [A.]

THE method described in this article was first presented to English readers in its present simplified form in an Appendix to Mr. Wm. Dunn's *Lectures on Reinforced Concrete*, published by the Cambridge University Press, 1911, and again in the 3rd Edition of Messrs. Marsh and Dunn's *Manual of Reinforced Concrete*, no proof being given in either case. The demonstration which follows is based on the treatment of the subject in the American and German authors referred to by Mr. Dunn.

ENUNCIATION OF METHOD.

§ 1. In dealing with beams by this method it is necessary to consider the loading on each span separately, all other spans being assumed free from loading of any kind—not merely without live load, but as though no weight of any kind existed in them. Then the bending moment diagram of all the various loads which are to be assumed to be acting together in all spans in any given case is found by summing the ordinates of each of the diagrams found separately for each span, due regard being had to the sign (positive or negative) of the ordinates.

§ 2. In Fig. 1 a beam is shown subject to loading in the second span only. This beam happens to consist of five spans, but they are of irregular lengths and the description and reasoning are absolutely general.

Divide each span (Fig. 2) into three equal parts and through the points of division draw verticals TV_1 , TV_2 , etc. These are known as "third verticals." (In the end spans if, as is usual, the end of the beam is considered freely supported—not fixed—only the third verticals farther from the end need be drawn.)

§ 3. Take the horizontal distance of TV_2 from b (the support) and set it off from TV_1 giving the point v_3 . Then the space between TV_1 and TV_2 is divided at b so that $v_1b = \frac{1}{3}l_1$ and $bv_2 = \frac{1}{3}l_2$; while at v_3 it is divided inversely so that $v_1v_3 = \frac{1}{3}l_2$ and $v_3v_2 = \frac{1}{3}l_1$. Through v_3 draw a vertical LT_b . This is known as a "limited third vertical"—a curious name: "inverse third vertical" would seem more suitable. Similarly draw LT_c , LT_d , and LT_e .

§ 4. Beginning from point a (left-hand end) draw an inclined line in any direction to meet LT_b in g . From intersection of this line with TV_1 in h draw hg through support point b to meet TV_2 in j . Join gj intersecting the beam line in i_1 . From i_1 draw line i_1k to any point k on LT_c , and from intersection l of this line with TV_3 draw lm through support point c to TV_4 . Join km giving i_2 at intersection with beam line. Proceed in the same way to find i_3 , and then i_4 , p being the point on TV_5 through which op is drawn to give i_4 . From f (right-hand end) draw fp produced to intersect LT_e in q . Join qn intersecting the beam line in i_5 . From i_5 proceed towards the left as last described and find i_6 , then i_7 , and lastly i_8 .

§ 5. In Fig. 3 the beam spans are set out and the " i " points found by the construction just described are marked.

The second span, bc , is to be considered as loaded as shown in Fig. 1, all other spans being entirely without load. In Fig. 1 the hatched area represents the bending moment diagram for the load system if bc were a one-span free-ended beam. Let A be the area of this hatched diagram. (This quantity, A , will be in terms of a product of linear units and bending moment units—i.e., ft. \times ft. lbs., or in. \times in. lbs.) Let b be the distance from support B , and c , the distance from support C , of the centre of gravity of the hatched area as shown in Fig. 1. Then in Fig. 3 set off vertically downwards from b a length equal to $\frac{A \times b}{\frac{1}{3}l_2^2}$ and from c a length equal to $\frac{A \times c}{\frac{1}{3}l_2^2}$. (These quantities will be in moment units and must be set off to the same scale as that to which the bending moment is to be drawn—the same as that to which the diagram in Fig. 1 is already drawn.) Join the point so found below b to c and that below c to b intersecting on the vertical through the centroid of the free-end bending moment area. These are known as the "cross lines."

§ 6. From i_1 and i_7 drop verticals to meet the cross lines in r and s . Join rs and produce to meet the support verticals in t and u . Then bt and cu will be the negative moments at the supports B and C respectively. Join ta ; and draw ui_6 produced to meet the support vertical d in w . Draw wi_5 produced to meet support e vertical in x . Join xf ; and the hatched area then represents the complete bending moment diagram for loading on span bc only. In Fig. 4 this is shown on a straight line base, a, b, c, \dots, f . This is obtained by setting up bt' equal to bt (Fig. 3) and cu' equal to cu . Join $t'w'$; and on this line as base draw the bending moment diagram t', w', x', y', u' in which each of the vertical ordinates, such as $w'' w', x'' x'$ and $y'' y'$, is equal to the ordinate in the same position in Fig. 1 (the free-end diagram). Then, to get the moments in other spans, join $t'a$ and draw $u'i_6$ produced to support vertical d , etc., as last described.

In practice the finished bending moment diagram (as Fig. 4) for one span loading need not be drawn. When the support moments bt , cu , dw and ex (as in Fig. 3) have been found, the support moments for the loading on each of the other spans (taken separately) would also be found. A summation of these support moments at each support would then be made giving points such as t'', u'', d'' and e'' as defining the support moments, $bt'', cu'',$ etc., for the combination of loadings in each span. Then on the base lines att' , $t''u'', u''d'', d''e''$ and $e''f$ the bending moment diagrams for the load on each span would be drawn giving a

figure somewhat as shown by the broken line (Fig. 4). This would be the finished bending moment diagram for the assumed combination of loading arrangements in the different spans, the areas below the line $abc \dots f$ being positive and those above negative. Several of these diagrams would have to be drawn so as to take account of dead load only in certain spans being combined with full load in others, and so forth, to show the worst possible combinations at all points.

PROOF.

§ 7. The following two assumptions are made in this method.

(i.) All supports are made, and remain, on the same level.

(ii.) The moment of inertia (or the product of the moment of inertia and the coefficient of elasticity) is constant throughout the beam. (See Addendum as to varying IE .)

The two following theorems will be taken as proved :—

(a) If for any system of forces a force polygon, polar diagram and funicular polygon be constructed, and if then a line be drawn parallel to the line of action of one of the forces, the intercept of the line so drawn between the sides of the funicular polygon (produced if necessary) which meet on the line of action of that force multiplied by the perpendicular distance of the pole from the line in the force polygon representing that force gives the moment of the force about any point on that line.

Where the forces are all vertical this may be more simply stated as follows :—

If the funicular polygon of any system of vertical forces be drawn and a vertical be drawn cutting the two sides of the funicular polygon (produced if necessary) which meet on the line of action of one of the forces, then the intercept (of the vertical line) between these two sides of the funicular polygon multiplied by the polar distance equals the moment of the force about any point on the vertical line so drawn.

(b) The elastic line, or true strained form, of a beam is the same as that of a cable whose load diagram is the bending moment diagram of the beam when the cable is also subjected to a horizontal pull equal to the product of the moment of inertia of the beam section and the coefficient of elasticity of its material (*i.e.*, to IE). This is known as Mohr's Theorem. The funicular polygon of the bending moment diagram considered as a load diagram when drawn with a pole distance IE gives the form of this cable.

§ 8. The fact that the general form of the required diagram for the continuous beam (one span loaded) will be of the type shown in Fig. 4 will be clear from the following considerations :—The upward action of the supports b and c at each end of the loaded span will cause negative moments at the supports as shown in Fig. 4. The ends a and f being free, there can be no moments there. The conditions at the other supports can be inferred best by first imagining the supports

D and E removed. The beam will then tend to bend to a form similar to that shown by the broken line in Fig. 6 (a). The action of support D , which retains the beam line on the same level (according to assumption (i. § 7)), would therefore be a downward action and the strained form would then resemble the broken line of Fig. 6 (b). Finally, if support E be introduced, its action would clearly be an upward pressure in order to keep the beam line at e on a level with the other supports. From this it is clear that if one span of a continuous beam only be loaded, the supports forming each end of that span will exert an upward pressure on the beam and the supports beyond will exert pressures alternately downward and upward. A downward acting support is equivalent to a load and causes at the point of its action a positive bending moment, whereas an upward acting support causes a moment of the opposite sign—viz., a negative moment. At the end supports no moments exist since the beam is free to bend to any slope there, but the rule as to alternate upward and downward action still holds good. This shows that the required bending moment diagram will be of the form shown in Fig. 4.

§ 9. The continuous beam bending moment diagram (of Fig. 4) may be regarded as made up of the summation of two other diagrams :—

One.—The diagram for the loading on the span (which may be called the "span" moment diagram) considered as free-ended, ignoring any effect of the supports due to continuity. This will obviously be the same as the diagram in Fig. 1.

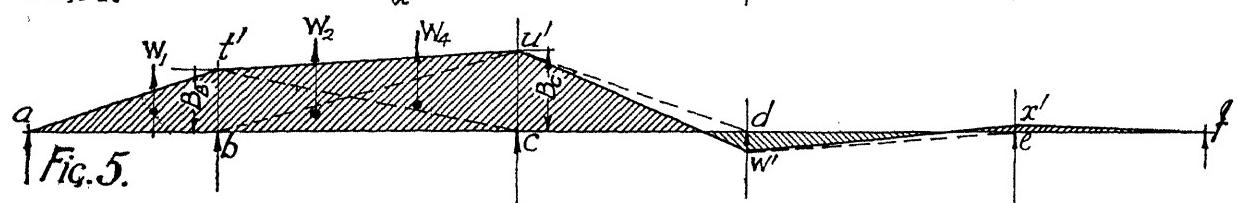
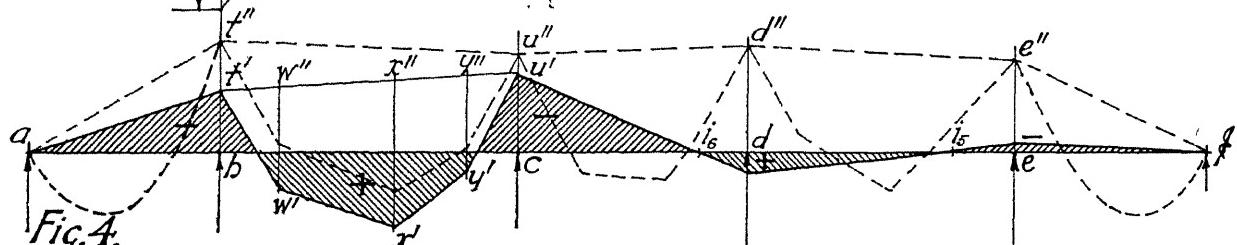
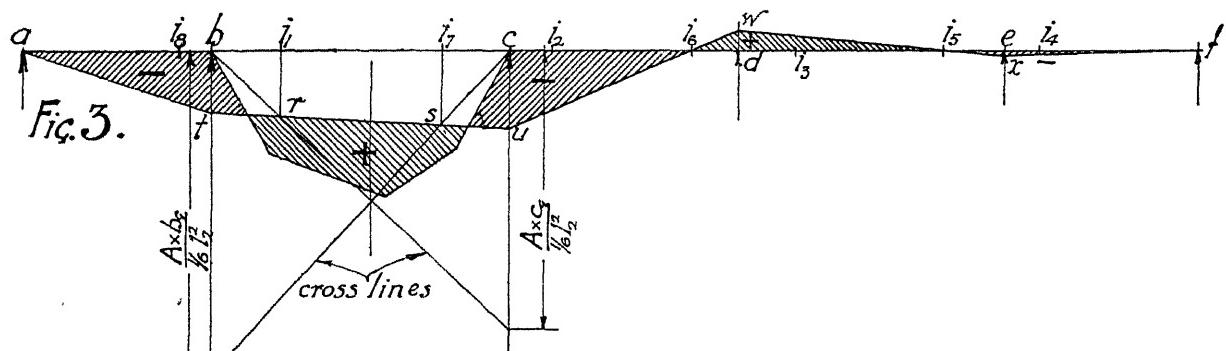
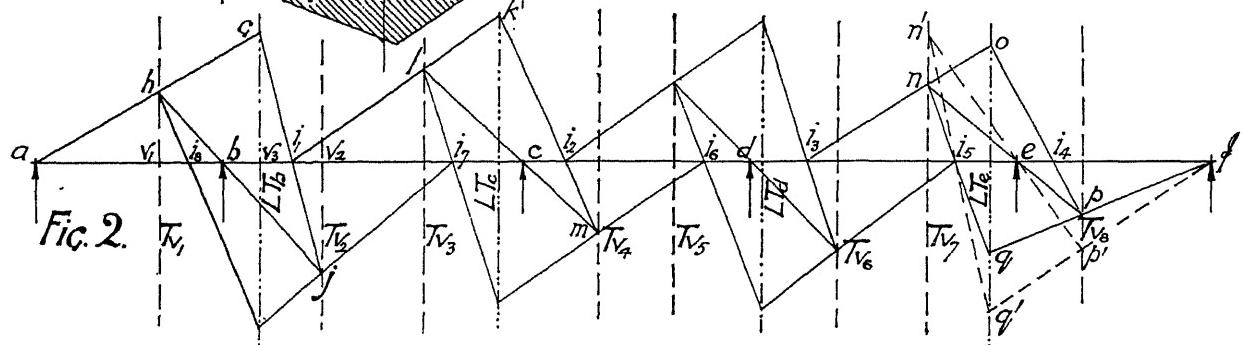
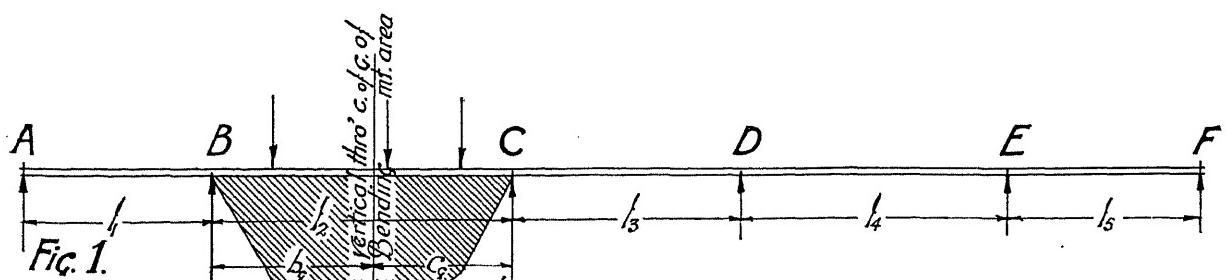
Two.—The diagram due to the action of the supports only (the "support" diagram) ignoring the span loading. This will be of the form shown in Fig. 5.

These may be regarded as the component parts of the complete diagram of Fig. 4.

§ 10. It now becomes evident that it is only necessary to find the support moments and the whole diagram can then be drawn, inasmuch as the data of the problem are always sufficient for the construction of the span diagram.

§ 11. Some of the properties of the diagram in Fig. 4 must now be investigated with a view to ascertaining a *modus operandi* that will give by graphical construction the values of the moments at b and c — B_b and B_c —(*i.e.*, the magnitude of bt' and cu'), and then from these the values of B_D (*i.e.*, dw') and B_E (*i.e.*, ex'). This investigation is made by applying Mohr's theorem (see (b) § 7) and will show how the method already enunciated was arrived at and so establish the theoretical basis on which it is founded.

§ 12. Having given the general form of the bending moment diagram (Fig. 4), the next step is to trace the elastic line, or rather what might be termed an "elastic line equivalent," by splitting up the area of the bending moment diagram into smaller component areas and considering the area of each acting as a vertical force through the centre of gravity of the area and drawing a funicular polygon with pole distance IE (or



$\frac{1}{n}IE$ for convenience, which would give a representation of the elastic line such that the deflection at each point would be n times the true deflection). As previously stated, the only points that it is necessary to investigate are the support points; and the effect at the supports will be the same if the area of the bending moment diagram in each span is divided up into any convenient areas, positive and negative, and these areas replaced by forces (acting downwards or upwards according to the sign of the area). A funicular polygon of these may then be drawn with a convenient pole distance (representing IE to some scale which it is not necessary for the present purpose to know), and the result will be an equivalent of the elastic line which will be accurate for the support points. That is, the side of the funicular polygon through the support points will indicate truly the slope of the beam at those points.

§ 13. Let the complete bending moment area (as in Fig. 4) be divided up as follows:—

In Fig. 5. Join $b'u'$ and $c't'$ and also join $u'd$ and $w'e$.

The bending moment area may then be considered as split up into the undermentioned parts:—

In span $A-B$: The triangle abt' which will be represented by a negative (upward) force W_1 acting at the centre of gravity of the triangle (i.e., $\frac{1}{3}l_1$ from support B).

In span $B-C$: (i.) The triangle $bt'c$ to be represented by a negative force W_2 acting at the centre of gravity of the triangle (i.e., $\frac{1}{3}l_2$ from support B).

(ii.) The triangle $cu'b$ equal to negative force W_4 at distance from c equal to $\frac{1}{3}l_2$.

(iii.) Area of "span" diagram (as in Fig. 1) which will be represented by a positive (downward) force W_3 acting at the centre of gravity of the area.

In span $C-D$: (i.) The triangle $cu'd$ equal to negative force W_5 at distance $\frac{1}{3}l_3$ from c .

(ii.) The triangle $u'w'd$ equal to positive force W_6 at $\frac{1}{3}l_3$ from d .

In span $D-E$: (i.) The triangle $dw'e$ equal to positive force W_7 at $\frac{1}{3}l_4$ from d .

(ii.) The triangle $w'ex'$ equal to negative force W_8 at $\frac{1}{3}l_4$ from e .

In span $E-F$: The triangle $ex'f$ equal to negative force W_9 at $\frac{1}{3}l_5$ from e .

It will be seen that the areas composing the "support" moment diagram become forces acting on the "third verticals"; the "span" moment area (in one span only) becomes a force acting on the centre of gravity of the area.

These forces are represented in Fig. 7, and the intervening spaces numbered for Bow's notation. The corresponding polar, or force, polygon is in Fig. 9, and in Fig. 8 (the heavy line) the funicular polygon, or "elastic line equivalent," in which the lines passing through the support points give the tangents to the elastic line at the supports (the actual tangents of the

support slopes will, of course, be $\frac{1}{n}$ of the tangents of

these lines, where n is the divisor by which IE was reduced to give H , the pole distance, of Fig. 9).

The sides of the "elastic line equivalent" in Fig. 8 have been numbered to correspond to the rays of the polar polygon to which they are respectively parallel.

§ 14. In Fig. 8. Produce sides 1 and 3 of the "elastic line equivalent" to meet at g , and through g draw the vertical gj cutting the second side in j . Then by theorem (a) § 7, $gj \times H$ is the moment of the force W_1 about any point in the vertical gj and also is the moment of force W_2 . Force W_1 is, however, equal to the area of the triangle abt' in Fig. 4 or 5, that is, is equal to $B_B \times \frac{1}{2}l_1$. So also force W_2 is the area of the triangle $bt'c$ (Fig. 5) and is equal to $B_B \times \frac{1}{2}l_2$.

If W_1 be at a distance x , and W_2 at a distance y , from gj , then the moment of $W_1 = B_B \times \frac{1}{2}l_1 \times x$ and the moment of $W_2 = B_B \times \frac{1}{2}l_2 \times y$.

These are each equal to $gj \times H$ and

$$\therefore B_B \times \frac{1}{2}l_1 \times x = B_B \times \frac{1}{2}l_2 \times y$$

$$\therefore l_1 x = l_2 y. \quad (i.)$$

$$\text{or } \frac{x}{y} = \frac{l_2}{l_1} \text{ and } x = \frac{l_2}{l_1} y \quad (ii.)$$

$$\text{But } x + y = \frac{1}{3}l_1 + \frac{1}{3}l_2 \quad (iii.)$$

$$\therefore = \frac{1}{3}(l_1 + l_2)$$

Substituting value of x from (i.) in (iii.)

$$y \left(\frac{l_2}{l_1} + 1 \right) = \frac{1}{3}(l_1 + l_2)$$

$$\therefore y = \frac{\frac{1}{3}(l_1 + l_2)}{\left(\frac{l_2}{l_1} + 1 \right)} = \frac{\frac{1}{3}l_1(l_1 + l_2)}{(l_2 + l_1)}$$

$$= \frac{1}{3}l_1$$

Then substituting in (ii.) above

$$x = \frac{1}{3}l_2$$

The line gj is therefore the "limited third vertical" described in § 3. In the same way it can be shown that sides 4 and 6 of the funicular polygon, or "elastic line equivalent," will meet on LT_c ; sides 6 and 8 on LT_d and sides 8 and 10 on LT_e .

§ 15. Produce side 3 to meet support vertical b in h and support vertical c in o ; and produce side 4 to meet vertical b in k and vertical c in l (Fig. 8).

By theorem (a) § 7, $bh \times H$ is the moment of W_2 about support B . But W_2 equals, as before, $B_B \times \frac{1}{2}l_2$ and its moment about B is $B_B \times \frac{1}{2}l_2 \times \frac{1}{3}l_2 = B_B \times \frac{1}{6}l_2^2$.

So that $bh \times H = B_B \times \frac{1}{6}l_2^2$.

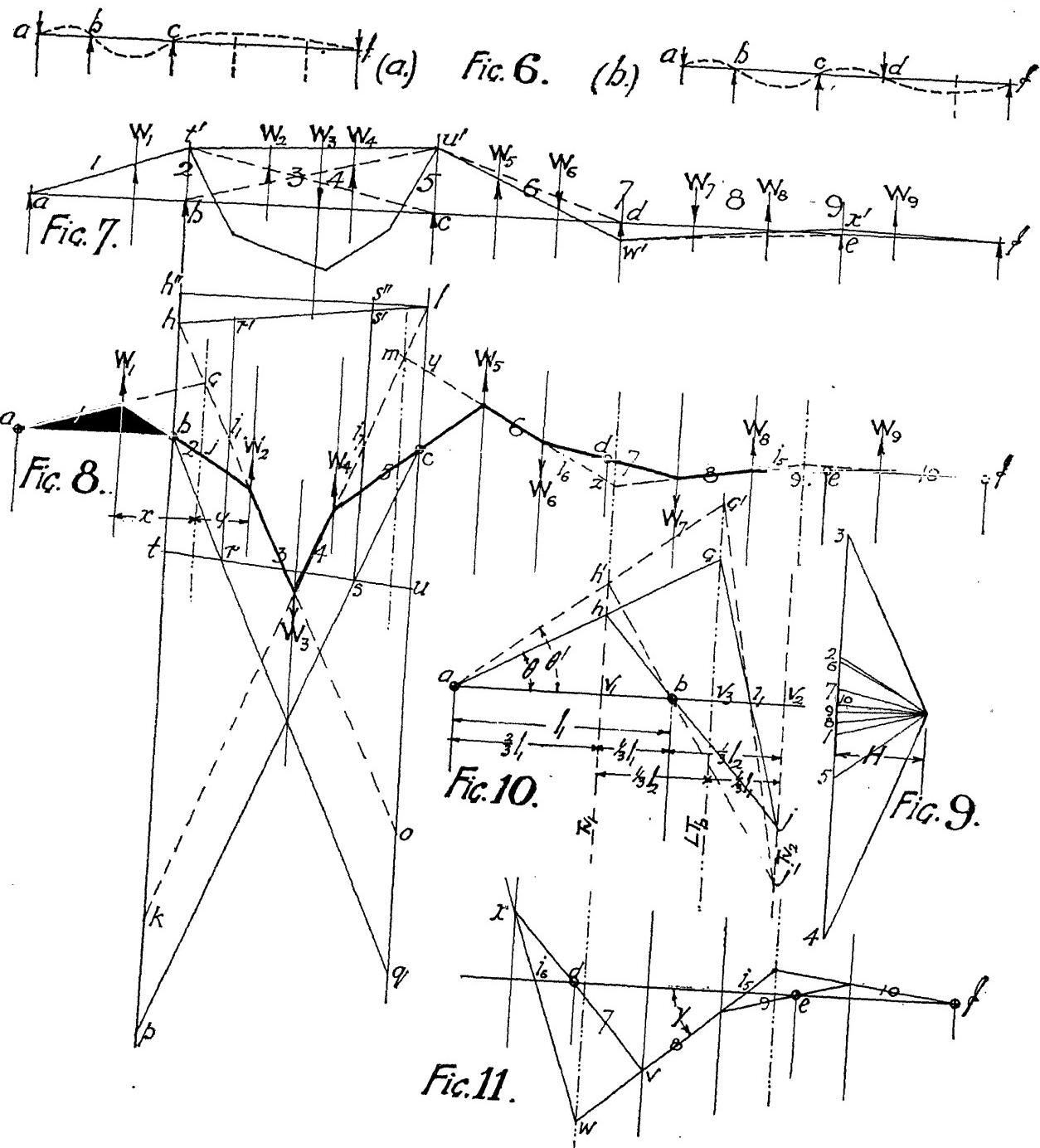
If H were chosen equal to $\frac{1}{6}l_2^2$, then bh would actually give B_B to the same scale as has been used throughout for bending moments.

Again, by theorem (a), $hk \times H$ equals the moment of force W_3 about support B . Now the magnitude of force W_3 equals A , the area of the free-end bending moment curve as in Fig. 1. And the moment of W_3 about support B equals $hk \times H = A \times b_g$, where b_g , as in Fig. 1, is the distance of the centroid of the bending moment area from B .

Similarly $lo \times H = A \times c_g$.

If H were equal to $\frac{1}{6}l_2^2$

$$\text{Then } hk \text{ would equal } \frac{A \times b_g}{\frac{1}{6}l_2^2}$$



And lo would equal $\frac{A \times c_g}{\frac{1}{6} l^2}$

If now from b a distance bp be set off vertically downwards equal to hk and below c a distance cq be set off equal to lo and bq and cp joined, and then from i_1 and i , verticals be drawn to meet these cross lines in r and s , then rs produced to meet the support verticals in t and u will give bt equal to bh and cu equal to cl , which may be proved as follows:—

From l draw a horizontal line lh'' to support vertical b and produce $s'i_1$ to meet lh in s' and lh'' in s'' .

The triangles lhk and $ls'i_1$ are similar.

$$\therefore \frac{s'i_1}{hk} = \frac{ls'}{lh}$$

The triangles $ls's''$ and $lh''h$ are similar.

$$\therefore \frac{ls'}{lh} = \frac{ls''}{lh''}$$

\therefore From (i.) and (ii.)

$$\frac{s'i_1}{hk} = \frac{ls''}{lh''} = \frac{ci_1}{cb}$$

The triangles ci_1s and cbp are similar.

$$\therefore \frac{ci_1}{bp} = \frac{ci_1}{cb}$$

From (iii.) and (iv.)

$$\frac{i_1s}{bp} = \frac{s'i_1}{hk}$$

But $bp = hk$

$$\therefore i_1s = s'i_1.$$

Similarly i_1r may be shown equal to i_1r' .

Therefore the quadrilateral rsi_1i_1 equals in all respects the quadrilateral $r's'i_1i_1$.

Whence it follows that the quadrilateral $tucb$ equals the quadrilateral $hlcb$ in all respects.

$$\therefore bt = bh \text{ and } cu = cl$$

§ 16. If H had been equal to $\frac{1}{6} l^2$ then hk would have equalled $\frac{Ab_g}{\frac{1}{6} l^2}$ and lo would have equalled $\frac{Ac_g}{\frac{1}{6} l^2}$ and

hb and lc would actually, without further adjustment, represent B_B and B_C respectively to the bending moment scale as already explained. If, therefore, bp and cq had been made equal respectively to $\frac{Ab_g}{\frac{1}{6} l^2}$

and $\frac{Ac_g}{\frac{1}{6} l^2}$ as in Fig. 3, then bt and cu would respectively be B_B and B_C .

It remains now to show the true position of points i_1 and i , in order that the method described above (§ 1 to § 6) may be justified as far as concerns the finding of B_B and B_C ; but first of all a parenthetical paragraph with regard to the pole distance H must be introduced.

§ 17. The polar distance, H , really represents in Mohr's theorem the quantity IE ; but as the object of the present construction is not to find the elastic line, or to calculate deflections, but only to find the support moments, it is not necessary to calculate IE ; the pole distance, H , may be arbitrarily chosen of any convenient length, though to some scale which it is

not necessary to know this quantity does stand for the IE of Mohr's theorem.

The cross lines drawn as already explained will, as a matter of fact, be based on an assumed value of H which is different for every span (unless where two or more spans are of equal length), inasmuch as H will be $\frac{1}{6} l^2$, where l is the length of the span whose cross lines are being drawn—each span in turn. This does not affect the fact that in each case what is arrived at (as at hb or bt and lc or cu) is the value of the support moment (for the loading on the span under consideration) to the bending moment scale in use throughout for the free-end diagrams notwithstanding the varying lengths of the underlying pole distance H .

§ 18. To resume now the connection with § 16 and investigate the properties of the "i" points:—

Consider the part of the funicular polygon around support b . This is re-drawn enlarged in Fig. 10. The triangle gjh has two of its angles (h and j) on third verticals, one angle (g) on a limited third vertical, while one side (hj) passes through the support point b and one side (gh) produced passes through a . These are fixed and essential conditions whatever had been the loading on Span 2 or the pole distance H .

Denoting the angle gab by θ .

$$\begin{aligned} \text{Then } gv_3 &= av_3 \tan \theta \\ &= (\frac{2}{3}l_1 + \frac{1}{3}l_2) \tan \theta. \end{aligned}$$

$$\text{Also } hv_1 = \frac{2}{3}l_1 \tan \theta.$$

The triangles hv_1b and gv_2b are similar.

$$\therefore \frac{gv_2}{v_2b} = \frac{hv_1}{v_1b}$$

$$\text{That is, } gv_2 = \frac{hv_1}{v_1b} \times v_2b$$

$$= \frac{2}{3}l_1 \tan \theta \times \frac{\frac{1}{2}l_2}{\frac{2}{3}l_1}$$

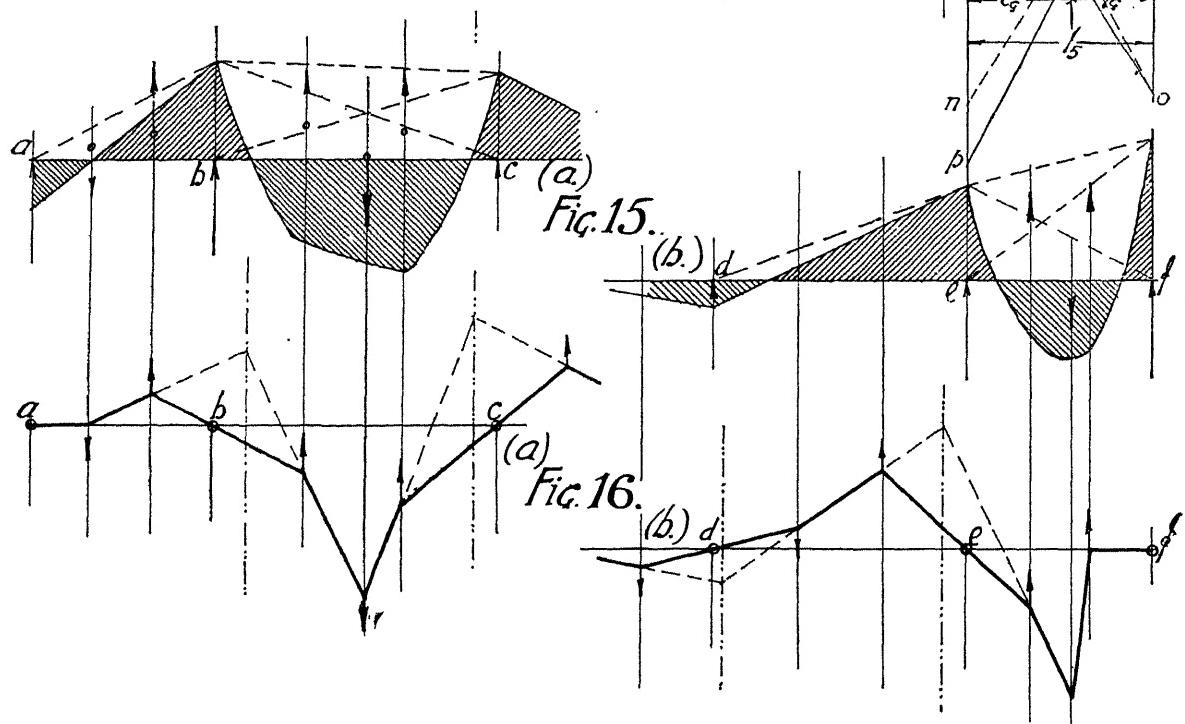
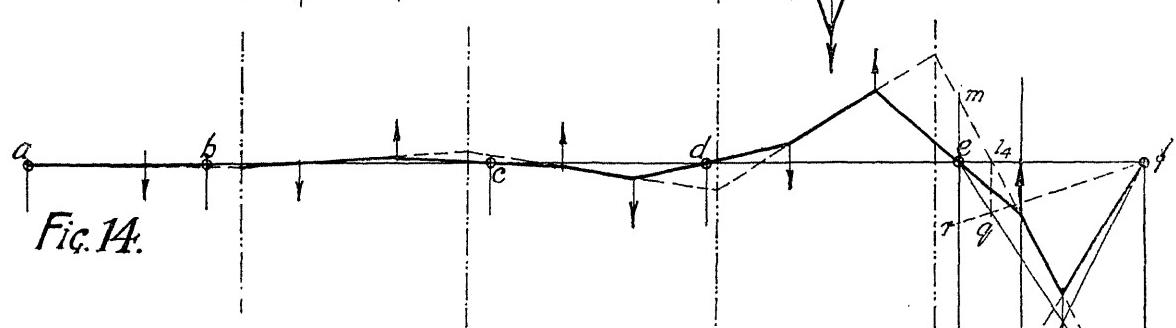
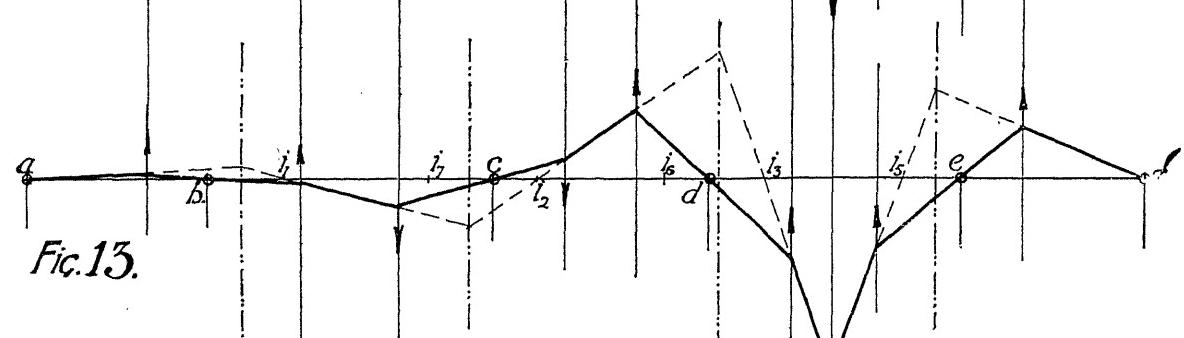
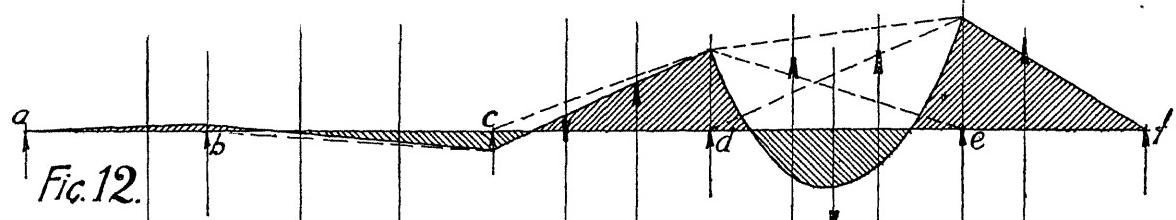
$$= \frac{2}{3}l_2 \tan \theta.$$

The triangles gv_3i_1 and gv_2i_1 are also similar.

$$\begin{aligned} \therefore \frac{gv_3i_1}{v_3i_1} &= \frac{gv_2}{v_2i_1} \\ &= \frac{gv_2}{(\frac{2}{3}l_1 + \frac{1}{3}l_2) \tan \theta} \\ &= \frac{\frac{2}{3}l_2 \tan \theta}{\frac{2}{3}l_2} \\ &= \frac{(\frac{2}{3}l_1 + \frac{1}{3}l_2)}{\frac{2}{3}l_2} \end{aligned}$$

This proves that the position of i_1 with respect to v_3 and v_2 (the limited third vertical and third vertical) is quite independent of the loading on the second span. It is, moreover, quite independent of the angle θ and would be exactly the same if ag assumed the position ag' making its angle of inclination θ' .

Considering now the other end of the beam—spans fe and ed —drawn to an enlarged scale in Fig. 11 with the angles exaggerated for clearness sake, it is evident that proceeding from right to left to the point i_5 is fixed in exactly the same way as i_1 has just been shown to be with respect to end a . An application of the same reasoning would give the same position for i_6 in terms of l_5 and l_4 as was found to fix i_1 in terms of l_1 and l_2 . Proceeding further to the left from i_5 the position of i_6 is seen to be found by a repetition of



(a)
Fig. 15.

(b.)
Fig. 16.

(a)
Fig. 16.

(b.)
Fig. 16.

precisely similar conditions—viz., a triangle wvx having two angles on third verticals, one on a limited third vertical, one side passing through the support point and one side produced passing through a fixed point (in this case i_6). The same reasoning will show that whatever value be given to the angle γ the position of i_6 will be the same and will be a function only of i_5d and l_3 , quite independent of any loading. As i_5d is a function of l_5 and l_4 , then i_5d will be also a function of l_5 and l_4 , and i_6d will also in consequence be dependent only on the relative lengths of the l 's.

Returning to Fig. 8 and continuing the process one step further, it will be seen that i_1 is found again from i_6 by the same process and is a fixed point dependent for its position only on the relative lengths of the spans.

If now span 4, ($d-e$), were loaded in some way to give a bending moment diagram as shown in Fig. 12, the funicular polygon, or "elastic line equivalent," would then work out as in Fig. 13. By comparison of Figs. 8 and 13 it will be evident that i_1 and i_6 are still in the same positions and can be proved so by an application of the same reasoning used above to prove i_1 was a fixed point independent of any loading arrangements. Moreover, these points remain in their positions whether the span in which they are situated is loaded or unloaded.

In Fig. 14 the effect of loading an end span is shown, and this again bears out the same conclusion—viz.:

"That in each span (except end spans with a free end) there are two 'i' points depending for their position only on the relative lengths of the span, and further that these points occupy the same positions whether the spans in which they occur be loaded or unloaded."

The method by which these points are seen to be fixed in unloaded spans, as in Figs. 11, 8 and 13, is the simplest way of finding them and is obviously the same as shown in Fig. 2 and described in § 4. When beginning from right to left (Fig. 2) at point f , the line fp might have been drawn at any angle to meet L_T in q , but by drawing it through p (already fixed) the line pn through the support point is made use of again instead of having to draw another as would have been the case if p had been at p' .

§ 19. The peculiar properties of the "i" points in the case of a loaded span will be seen from paragraphs 15 and 16; but in the enunciation of the general method (§§ 1 to 6) it will be seen that in the case of an unloaded span they are (or rather one in each span is) treated as inflection points where the bending moment is zero. That this is justified may be seen in referring again to Figs. 7 and 8. In Fig. 8 $cy \times H$ is the moment of force W_5 about support C , and $dz \times H$ is the moment of force W_6 about support D (Th. (a) § 7). As the lever arms of these forces are the same, viz.: $\frac{1}{3}l_3$, the moments are proportional to the forces—i.e., cy and dz are proportional to W_5 and W_6 . In Fig. 7 cu' and dw' are also proportional to W_5 and W_6 ; and

therefore the zero point in Fig. 7 coincides with i_6 in Fig. 8 and similarly in other spans, which proves that "i" points are "inflection" points in unloaded spans.

§ 20. In considering loading on an end span as in Fig. 14 it becomes evident that some slight modification of § 15 as to cross lines becomes necessary for application to a loaded end span. In Fig. 14 the last, and last but one, sides of the funicular polygon are produced to meet the support verticals in m , n and o . If $H = \frac{1}{6}l_5^2$, then mn and fo are respectively equal to Ae_g and Af_g as before. In practical work ep is set down equal to $\frac{1}{6}l_5^2$ and fo equal to $\frac{1}{6}l_5^2$ and fp and eo are joined to form the cross lines. Through i_4 a vertical is drawn to meet the cross line in q , and fq produced to meet the support vertical in r cuts off er equal to B_E to the general bending moment scale. This is due to the fact that the end of the beam, if free-ended, is really the second "i" point of the end span.

§ 21. If the end of the beam were built in or held so as to be fixed horizontally in direction, a bending moment is called into being over the end supports in such a way that the bending moment diagram assumes the form shown in Fig. 15 (a) when the end span is unloaded and the form of 15 (b) when it is loaded. This gives two forces in the end spans to form the "elastic line equivalent" in place of the one of Fig. 7; and they each act on a third vertical. The effect of fixity at the ends is to maintain the end sides of the "elastic line equivalent" horizontal and the first inflection point (and the last) will come on the third vertical instead of at the end as shown in Figs. 16 (a), (b). In proceeding to find further "i" points the first inclined line is drawn therefore from the first third vertical intersection with beam line—not from the end of the beam, as in the case of a free-ended beam.

For loading on the end span in a fixed-ended beam § 15 as to "i" points and cross lines applies in all respects, points i_4 and i —the last third vertical—being the "i" points.

This completes the demonstration of the theoretical basis of the method enunciated in general terms in §§ 1 to 6.

§ 22. Where the load is uniformly distributed the construction of the cross lines becomes simplified. The free-end (or "span") bending moment curve is of parabolic form; and if B_M is the maximum ordinate (in the centre of the span), then the area of the curve is $B_M \times \frac{2}{3}l$ and the distance of the centroid from either support is $\frac{1}{3}l$. In that case the general expressions $\frac{Ab_g}{\frac{1}{3}l^3}$ and $\frac{Ac_g}{\frac{1}{3}l^3}$ become $\frac{(B_M \times \frac{2}{3}l)\frac{1}{3}l}{\frac{1}{3}l^3} = 2B_M$.

The cross lines will therefore intersect one another on the span centre vertical at a distance B_M from the beam line, so that it is only necessary to set up the central bending moment ordinate of the free-end curve on the span centre vertical and join the point so found

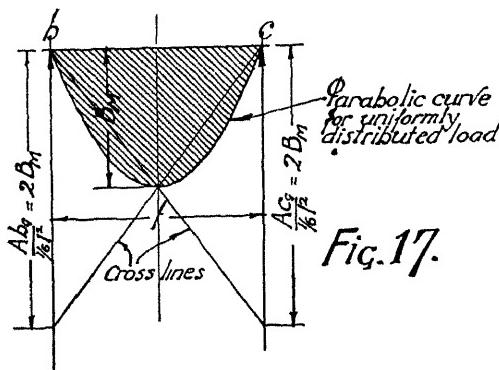


Fig. 17.

to each support point which gives the required cross lines (see Fig. 17).

JOHN H. MARKHAM.

September, 1917.

ADDENDUM.

VARYING MOMENT OF INERTIA.

Although it has not been necessary in the whole of the process already described to assign any value to the quantity IE , yet if the assumption had not been maintained that this quantity remained constant throughout the beam, the horizontal pull in Mohr's imaginary cable, and hence the pole distance by which the "elastic line equivalent" was drawn, would have varied from point to point—a state of affairs that is not covered by the methods elaborated above. As a matter of fact it will generally happen, especially in beams of reinforced concrete, that the moment of inertia will vary considerably in different parts even of the same span; but the effects of this on the results obtained by assuming it constant are not very considerable.

If greater accuracy were desired having regard to the variability of the moment of inertia, it would be necessary to perform the construction as detailed above on the assumption of a constant moment of inertia, then assign tentative values to the moments of inertia at points along the beam and recommence the construction after adjusting the bending moment curves as follows:

Choose any convenient point in the beam, such as the centre of one of the spans or the position of the maximum bending moment ordinate in one of the spans. If I_c is the value tentatively assigned to the moment of inertia at that point and I_1, I_2, I_3, I_4 , etc., represent the moments of inertia assigned to points 1, 2, 3, 4, etc., and if B_1, B_2, B_3, B_4 , etc., are the ordinates of the original span bending moment diagrams at the same points, then new span curves must be drawn in which B_1 is replaced by an ordinate equal to $B_1 \times \frac{I_c}{I_1}$; B_2 by $B_2 \times \frac{I_c}{I_2}$; B_3 by $B_3 \times \frac{I_c}{I_3}$ etc.

The new span curves that result from this adjustment are then to be used in reconstructing the con-

tinuous beam bending moment diagram with a constant value of IE (the value of I being the I_c already referred to).

In this way allowance may be made for a variation in the "flexural rigidity" (as the quantity IE is called) in cases where such accuracy seems called for. When this is done the beam may be designed and final values of the moments of inertia will replace the tentative ones.

In reinforced concrete beams it will be necessary to calculate the moment of inertia about the centre of the depth of the beam section and to take into account the concrete both in tension and compression.

J. H. M.

CONTROLLED BUILDING MATERIALS

THE Science Committee find that there is a good deal of uncertainty in the minds of many architects with regard to the control or restriction imposed in the use of building materials owing to the fact that the Ministry of Munitions and other authorities have issued regulations which change from time to time to meet the varying national demands.

The Science Committee have had under consideration the question of using other materials in substitution for those which are now either not available or restricted in use by the various authorities. As a preliminary to the further consideration of the subject the following report is presented on behalf of the Science Committee as an indication of the present difficulties, in the hope that suggestions for restricted materials may be made by members of the Institute:

1. *Generally.*—No building work, interpreted in its widest sense, may be undertaken if the total contemplated expenditure exceeds £500, or is even of a less amount than £500 and involves the use of structural steel, unless a licence be first obtained from the Secretary (L), Ministry of National Service, S.W.1. A proper application form is provided, which should be carefully and fully filled up. The issue of a licence, however, does not ensure that the various restricted or controlled materials mentioned below will be allowed; for these further application must be made to the Controller, the Priority Department of the Ministry of Munitions, 1, Caxton Street, Westminster, S.W.1. Architects with buildings to design or alter should eliminate everything but the absolutely essential, bearing the following restrictions in mind.

2. *Timber.*—All foreign woods are subject to import licences, and for most descriptions these licences are obtainable only when the Controller of Timber can be shown that the importation is necessary for work of national importance.

The Controller of Timber further controls the use of the leading imported woods, namely, softwoods, teak, American walnut, and lignum-vitæ.

Home-grown woods (both hard and soft) are at present free from control as to use, but further developments of control in this direction are by no means unlikely.

The important woods, both home-grown and imported, are subject to maximum prices. As economy in the use of timber of all descriptions is of the highest importance, substitutes should be used as much as possible; for example, the use of wood for ground floors should be avoided.

Stringency is likely to increase rather than decrease and it is therefore desirable to consult the Timber Supply Department frequently as to the actual position.

All applications for permits and information should be addressed to the Controller of Timber Supplies, Board of Trade, Caxton House, Tothill Street, S.W.1.

3. Steel and Iron.—Steel, both of mild and shell-discard quality, in the form of joists, channels, plates, angles, etc., is controlled by the Ministry of Munitions, and a Priority Permit, to be obtained from the Priority Department of the Ministry, 1, Caxton Street, is necessary before such material can be released by merchants or stock-holders.

Expanded metal and other steel fabrics, galvanised and corrugated iron are similarly under control.

Patent glazing, having the bars made of mild steel with lead flashings, is not permitted.

Steel casements are practically prohibited unless of shell-discard quality and obtainable from stock.

Malleable iron is also prohibited.

Cast and wrought iron are at present uncontrolled, and can be used as substitutes for some of the above materials, but in practice it is often found that the Ministry of Munitions permit is required before stock-holders will release such material.

4. Lead.—1 cwt. of sheet lead or lead piping or lead bends, and not more than 28 lbs. of solder, can be used without the necessity of obtaining a permit for the purpose of necessary repairs or renewal requiring immediate execution and for which no other metal can be substituted.

No lead in the form of sheet or pipe is available for ordinary building operations, such as for flats, gutters, sinks, sanitary work, etc., except in very urgent cases.

Asphalte or asphalted felt can be frequently made use of as a substitute.

5. Copper and Brass.—These metals are controlled as severely as lead.

6. Floorings.—Most jointless floorings are practically prohibited, as they contain magnesite.

7. Asbestos Sheets.—Most forms of asbestos sheeting have now been commandeered by the War Office, but for extremely urgent work it is possible to obtain the release of small quantities. The use of asphalte and asphalted felt for temporary purposes fill up the gap to a certain extent.

8. Lead Paint.—This is prohibited without a permit excepting from existing stocks which contain not more than 3 per cent. metallic lead.

9. Uncontrolled Materials.—The following are some of those upon which no restriction is at present placed: Bricks, tiles, slates, sand, cement, lime and stone. Home-grown timber, cast iron, wrought iron, asphalte, certain wood block flooring, floor tiles, mosaic, glass, wall-papers, distempers.

Gravel, hard core and gravel are partially restricted by the Road Stone Control Committee.

Note.—It is intended to revise the above report from time to time as may be necessary, in view of the issue of further restrictions and prohibitions.

A. O. COLLARD [F.],
DIGBY L. SOLOMON [A.],
Hon. Secretaries, Science Standing Committee.

FRANCIS BOND, *Hon. Associate.*

1852-1918.

The death of Mr. Francis Bond deprives all lovers of architecture of a most enlightened teacher. He had done more perhaps than any Englishman in recent years to arouse the consciousness of his fellow-countrymen to the existence in their midst of the priceless heritage they possess in the treasures of Gothic art, and next to persuade them to understand, to appreciate and to study. Countless people, both in this country and in English-speaking nations beyond the seas, owe to Mr. Bond's books and lectures the beginning of a lifelong interest in architecture, and they will join with us in sorrow that his voice is still and his industrious pen has been laid down.

Mr. Bond passed in 1868 from King Edward's Grammar School at Louth—a fine photograph of the spire at Louth always hung in his study—to New College, Oxford, but on being elected Scholar, migrated almost immediately to Lincoln. He adopted teaching as a profession, and was for a few years classical master at Christ's Hospital; afterwards he joined the staff at the Cowper Street Foundation School, London, and closed his career in the scholastic world as head-master of the Hull and East Riding College, which he raised to a very flourishing condition.

In 1893—in mid-career—he boldly took the step of changing his profession and joined the Oxford University Extension Delegacy as lecturer—first giving a course of twelve lectures on Physical Geography and another series upon Commercial Geography. He then commenced his notable courses—each of six lectures—upon "Gothic Architecture," "Norman and Gothic Architecture," "The Mediæval Architecture of England," "Renaissance Architecture." He retired in 1914 and received on retirement the high compliment only paid by the Delegacy to those who, like Mr. Arthur Acland, Professor Poulton, Sir H. Llewellyn Smith, Vice-Chancellor Sadler, etc., have rendered specially distinguished service to the Extension work of the University, of being made Honorary Member of the Staff. It was the high

quality rather than the great quantity of his work that was recognised by the University. He was an admirable teacher and especially good as a guide on architectural excursions.

His first book, *English Cathedrals Illustrated*, was published in 1899 by George Newnes, Ltd., afterwards to be thoroughly revised and in part re-written and republished in 1912 as *The Cathedrals of England and Wales* (B. T. Batsford). His great book for architectural students, *Gothic Architecture in England*, an analysis of the origin and development of English church architecture from the Norman Conquest to the dissolution of the monasteries, was published (Batsford) in 1906, and has a wide sale all over the world. In 1908 he launched through the Oxford University Press the series of books on Church Art in England, with *Screens and Galleries in English Churches*, followed by *Fonts and Font Covers in English Churches*. In 1909 his fine book on *Westminster Abbey* was published and also the *Visitors' Guide to Westminster Abbey*, one of the best practical guide-books to a church ever written. Next year, *Wood Carving in English Churches* appeared, and in 1913 he published his two magnificently-illustrated volumes under the title of *An Introduction to English Church Architecture* (Oxford University Press).

This was his crowning work. It was written not so much for the professional student as for the great body of readers who nowadays are interested in mediæval architecture and wish to obtain some general knowledge of it. It had a large sale in America, but the great upheaval caused by the war has perhaps suspended its influence on the English reader. It was his wish to do for the monastic churches what he had done for the cathedral and parochial churches, and he had collected a large number of monographs and MS. notes for the purpose. But he was not able, and had not time, to undertake the work.

Dedications and Patron Saints of English Churches also appeared in 1913, and in 1916 a book, to which he gave peculiar care and investigation, on *The Chancel of English Churches*. During the same period between 1908 and 1917 he edited several books by various authors issued in the same series of books on Church Art.

Mr. Bond was elected Hon. Associate of the Institute in 1896, and was for many years a member of the Literature Standing Committee. He was a generous contributor to its TRANSACTIONS, either by Papers at Sessional Meetings or by articles and reviews in the Institute JOURNAL. Among his more notable Papers are the following: "On the Comparative Value of Documentary and Architectural Evidence in Establishing the Chronology of the English Cathedrals" (JOURNAL, Vol. VI. 1889, p. 17); "Classification of Romanesque Architecture" (JOURNAL, Vol. VIII. 1901, p. 269); "Notes on the Architectural History of Lincoln Minster" (JOURNAL, Vol. XVIII. 1911, pp. 33, 84, 300, 425).

A man of great independence of judgment, Mr. Bond

could always give reasons for the faith that was in him. Some people found him dogmatic, but he could write in 1914 candidly in a preface: "The writer is not ashamed to admit that he has had to unlearn much; no honest student can continue to work at his subject year after year without having the good opinion of his previous work considerably lowered, so much there is that ought to have been said but was omitted, so much that ought to have been said otherwise; so much, alas! that ought not to have been said at all." Personally, the writer can speak only of his entire kindness; he was always ready to answer a question, to advise one on knotty points, to put one on the right track. He had a large correspondence all over the kingdom and was most sensible of the kindness of the many photographers of architectural detail who added by their pictures so largely to the usefulness of his books.

He lived for many years at Waddon, near Croydon, in a house on Duppas Hill, with a large terraced garden that he rejoiced in planning, in planting and in attending. He was a great gardener on certain lines and perhaps was to be seen at his best when on Sunday afternoons he entertained his friends at Waddon, where, surrounded by his family and his roses, he walked and talked among his flowers, plucking great sheafs of blossoms for a lady, or leading a little child by the hand to the spot where the strawberries glowed or the raspberries were thickest.

PRESCOTT ROW.

The Rev. G. W. Saunders, of Martock Vicarage, Somerset, writes:—

I first met Mr. Francis Bond at Wells. He was giving a course of lectures on architecture, and I was a student at the Theological College, and ~~would~~ much spare time in taking a series of ~~photographs~~ of the capitals in the cathedral. He was very interested in the work, and from that time to the day of his death we kept up a correspondence on archaeological matters, in which I was the learner and he the teacher. He was always ready to place his knowledge at the disposal of any who needed it, and his books were written chiefly for that large public who were beginning to take an interest in our ancient churches. His great purpose was to make that interest more intelligent, and to base it on historical lines. With this in view he broke away from the traditional style theory and wrote of architecture as a connected whole, with a continuous history, and applied to it the evolutionary theory. He speaks of his "Gothic Architecture in England" as "an attempt not to classify, but to work out processes of development." In all his works he tries to show that for every change there was a reason, and to view the subject through the eyes of the mediæval master masons and to realise their difficulties and work out again their problems. His conclusions may not always be correct ones, but he has succeeded in making architecture a live art, interesting and

practical. Under his guidance we enter an ancient building with a new motif—to learn about it, and not merely to date it, and to answer such questions as, Why, Wherefore, Whence, and How?

In 1905 he could write with regard to architecture : "There never was a time of such blackness of indifference as to the master art of architecture. Nowadays it is outside the precincts of culture. Educated people know little and care less about it. Their ignorance is naked and unashamed. . . . At the older universities tens of thousands of pounds are expended every year to encourage the study of literature, mathematics, history and science; not a single penny on architecture."

He complained that at Oxford and Cambridge there was neither a professorship, lectureship, scholarship, nor fellowship in English mediæval architecture. Excavation work was unsupported, and the science was badly represented in our museums and our Royal Academy. If things are better to-day it is largely due to his enthusiasm and his writings.

He was always ready to welcome criticism and to receive help and advice, and was equally ready to give it. A keen photographer himself, he had a large number of friends who placed their work at his disposal, and it is due to them that his works are so abundantly illustrated. To help him in this way meant to be helped yourself.

Towards the close of his life he became anxious about the disposal of his large library. His wish was that his books should get into the hands of those who would value them. Only a few weeks before his death he asked the writer to select any books he wanted from a long list, and he did the same to others. It was all in keeping with the wish of his life that the interest he had aroused might be continued, and that others might be enabled to carry on his work.—G. W. SAUNDERS.

CORRESPONDENCE.

Demobilisation and Reconstruction.

H.M.S. "Glorious," c/o G.P.O., 25 Jan., 1918.

To the Editor, JOURNAL R.I.B.A.—

SIR,—Criticism of authority is always an ungrateful task, but perusal of the philosophical debates of the R.I.B.A. leaves me with a doubt as to the use of the Institute to the younger men. Practically every member fit and of military age joined up in the first year of war. What help is the Institute going to give to these young men in restarting their businesses? Is it not rather making sure that those who had achieved small offices of their own shall return to the ranks of draughtsmen?

Take this Cottage Competition. Who can enter for it? Certainly those at home only. If the object of the competition is achieved and the cottages built, it will not be the men on service who will build them. Yet two or three of these blocks of cottages would be

enough for many a man to start an office with; the Institute is making certain that they shall not get them. I am lucky enough to have a few postponed jobs to restart with myself, so I write without personal feeling. A large proportion of us will, of course, not come back, but it is going to be hard on those that do. Their service pay will have ceased, and as very few have private means they will have to become draughtsmen again in the offices of the older men. This may seem to be taking a narrow and personal view of the matter, but it is not really so.

The future of architecture is in the hands of the younger men, and the broadening of their views effected by war ought to bring about a Renaissance if they are given their chance. A little thought is worth a lot of scholarship, and we've all been learning to think. Our whole education has always been given up far too much to details of style and technique. We come back from Italy, say, with notebooks full of careful details of Peruzzi's mouldings and very little notion of why his buildings are beautiful, and we produce no great buildings. The note of English architecture of the better sort is scholarly tameness. War is blunting the edge of our worship of detail and making us realise space and mass. The beauty of H.M.S. *Tiger* is not a question of detail! and for the first time we realise the sky. All honour to the Institute for trying to imbue departmental officials with architectural sense; but let them remember that the younger men are the men that are going to matter, and start some practical scheme for helping them.—Your obedient servant,

JOHN COLERIDGE, Lieut. R.N.V.R.,
Licentiate.

It is satisfactory to be able to assure Lieut. Coleridge that the older men left to "carry on" at home are not unmindful of the after-the-war interests of their colleagues who are fighting the country's battles. The matter is being constantly debated by the Architects' War Committee, and the Architects' Reorganisation Committee has many schemes in prospect. The Secretary of the latter, Mr. F. R. Yerbury, has kindly jotted down the following notes of what his Committee is doing, and hopes to do :

The Architects' Reorganisation Committee, which is composed of representatives of all branches of the profession, together with the Council of the Architectural Association, is dealing with questions affecting the architectural profession after the war. It has many schemes under consideration, and as a result of its work, it hopes to be of particular assistance to architects who are at present serving in the Forces, when they are demobilised.

One suggestion which the Committee is dealing with is the establishment of co-operative offices, which will facilitate the return of young architects to practice. It hopes to make special arrangements for the reservation of Government architectural posts for architects who have been on war service. The Committee has

adopted Mr. Lanchester's proposals for "Social Circles" for young architects. This scheme was fully outlined by a paper read by Mr. Lanchester at the A.A. in November last.

The A.A. has established a bureau for men discharged from the Army, and all questions affecting their return to civil life are dealt with. It has also established a drawing office for providing employment for disabled architect soldiers who are not fit to take up permanent work in an architect's office. It is intended from time to time to publish details of further schemes and the Committee will welcome suggestions from any members of the profession, particularly those on service.

The important thing to emphasise, is that an organisation is in existence to assist any member of the profession who encounters difficulties of any kind on account of his war service.—ED.

After the War: Some Crying Needs.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I see in one of the daily papers that it is now proposed to push ahead with the reconstruction schemes for various districts in this country so that the work of building may be started as soon as peace is declared. In the face of the present great need for our national energies in other directions, I should have been inclined to doubt the accuracy of this statement were it not for the fact that I had ascertained by enquiry a little while back that an architectural housing competition was actually being held.

There are undoubtedly several channels into which any superfluous architectural energy which is running to waste at the present moment might be usefully directed. There is, for instance, the crying need for the remodelling of Building By-laws, both urban and rural, to allow of the scientific use of modern materials and inventions, and also to enable decent cottages to be built in agricultural districts at reasonable rates; there is the question of the restrictions on leasehold property, the possibility of so modifying our plumbing by-laws that bathrooms and so forth may be provided in blocks of dwellings on the same generous scale as obtains on the other side of the Atlantic, and other points in the laws which affect building.

The end of the war is still hidden in the mists of the future, and we cannot yet say what will be the conditions under which we shall have to live when peace comes. It seems, at any rate, likely that the general system of life will be considerably altered. National Kitchens may be instituted in connection with all artisans' dwellings in large towns, and possibly a more scientific cultivation of the land may lead to great changes in our village life as well. We have no precedents to guide us and our prophets of the last four years have proved themselves sorry bunglers at their business. To prepare for a future which can be foreseen is wise, but premature preparation for a future which cannot yet be reckoned with is a waste of our resources.

There is another consideration, which, however, I would not press if the call for these schemes seemed urgent. The point is this: at the present time a large proportion of architects are engaged on other duties, either in this country or overseas, which prevent them from taking any part in these schemes. A great number of these men have acquired an intimate knowledge of the needs and views of the artisan class which should be most valuable in the preparation of housing schemes, and by pushing ahead with these projects at the present time we lose all the advantage of their freshly acquired knowledge.

There is also the question of the fairness of the policy of holding architectural competitions from which the greater number of architects who were on the list at the outbreak of war are debarred from competing. At the present moment there are two, and only two, great and urgent claims on our services. The one is to provide men and munitions to crush the enemy, and the other is to raise foodstuffs to feed the people.

Until we are convinced that all that is possible has been done in these respects, we cannot consider ourselves free to turn to other pursuits, and until the future becomes far clearer than it is now it would surely be wiser to divert any spare architectural energy to clearing the ground by getting into force a more rational system of building regulations rather than to embark on any actual project of building which is only too likely to prove premature and abortive.—Yours faithfully,

AUTHUR BAETLETT, Lieut. R.E.S.

The Future of Architecture.

243 St. Vincent Street, Glasgow.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—That my following remarks may be understood more readily while they are being read, let it be clearly mentioned beforehand that there are two conflicting matters in architecture. One is that of not accepting any kind of remuneration beyond the ordinary commission for architectural services; which is a very elastic matter that has been stretched in many directions till its boundaries are not easily ascertainable. The other is quite the reverse; it is the position of the naval architect, who is able freely to take up anything, without letting anyone know what his profits are, and without any sentimental considerations.

It is not assumed that the above statements are absolutely accurate. It is admitted that there could be much hair-splitting over details which are of no consequence to my arguments. Of late, it is becoming realised that there is a modern tendency to undermine the position of architects by architectural tradesmen and others by employing architectural draughtsmen and by supplying drawings with accompanying estimates of contemplated works, there being no statement of charge for the drawings. It is beginning to be noticed that there are contractors who are getting

a command of the situation, and are becoming business princes, while a number of architects are "going to the wall." And there are no means by which this could be interrupted, because, for some mysterious reason, architects would condemn contracting, as practised by naval architects, as objectionable by architects, and want the latter to withdraw from the profession. But why? Where would be the iniquity?

It is possible that there are many architects of good business capacity whose strongest instinct is to amass money, and who could and would be able to undertake and execute some of the large plain works in a better way than the ordinary contractor does. Why should not those who so desire become contracting architects after the methods of the naval architects? This might become a very great advantage to the other architects, by preserving the other architectural work to men who love their art above everything, and do their work as artists, and could supply their designs in their own personal handiwork.

Is there any real objection to an architect not only making his design but also supplying a valid estimate, and thus obtaining for himself all the reasonable profits that pertain thereto? In doing so he would cut off the possible discredit of the original nominal estimate being greatly exceeded by the ultimate cost. It is just here that architects are losing so much; here that the contractor places himself on top; here, in this way, that so many architects get left on the scrap heap; here that business men have no faith in architects. Whereas, if an architect, after the manner of a naval architect, gave a plain businesslike estimate of the whole, the business employer would probably much prefer a trained architectural contractor, and we should begin to know what it is to become a great, reliable, important profession, respected for our business capacity. Does it not appear that architects should at once consider these questions, not sentimentally, but as a plain matter of business, for it is a great question, requiring a careful study? It might involve having a new class of architects in our Institute, who might have a distinguishing title, such as "contracting architects."

HORATIO K. BROMHEAD [F.]

The Comacines.

Briancroft, Milford-on-Sea, Hants,
1st March, 1918.

To the Editor, JOURNAL, R.I.B.A.—

SIR,—Sir Thomas Jackson has honoured me with his criticism, for which I am obliged to him; but I wish he could have seen my further notes on the Comacines before writing his letter to you of the 28th January, as I believe he would then have, at least, modified his views. Apart from that, however, I cannot imagine how Sir Thomas Jackson draws from my book such conclusions as he does. I fail to find that I suggest anywhere that the Comacines were "the centre of a system of craftsmanship to which we owe all the monuments of the Middle Ages." What

I do say is, "they spread their influence over all Western Europe, and even to our own shores."

Nor can I find where I assert that the Comacines were "the inheritors of the traditions of architecture from the building of Solomon's Temple downwards." My contention is that they derived their art principally from Rome, and I think every allusion I make to any connection between them and Solomon's Temple, which I hold to have been, in its erection, largely under Hittite influence, refers to symbolic traditions relating to the Temple which influenced their architecture in some few details of ornament only.

What my summary says on this point is: "In Rome developed Collegia of Artificers, and in early Christian days these had traditions of King Solomon."

As to the myth which makes the Temple at Jerusalem "the seed of future architecture," I can only say I never heard of it until now.

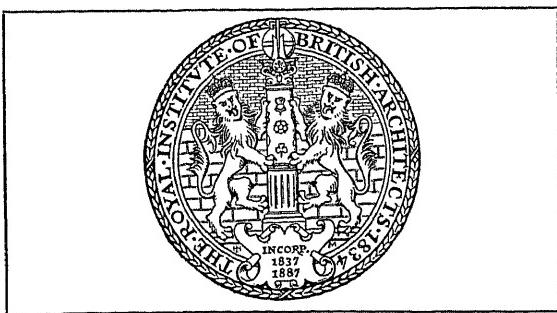
My making havoc of proper names I do not understand, unless Sir Thomas Jackson refers to four such in each of which unfortunately two vowels got transposed and which in reading the proofs I overlooked. I detect a slip of the same nature in Sir Thomas Jackson's letter.

The legend of Sesinius is, in one version, such as given by Sir Thomas, and I refer to it in my book as contained in Voragine's *Golden Legend*, but that is not the masonic tradition.

W. RAVENSCROFT [F.]

The Victoria Embankment and a War Memorial.

The *British Architect* for February has a fuller descriptive account of the proposal put forward by Mr. Edward W. Hudson [A.] for completing the Embankment with statuary as part of a scheme for a National Memorial of the Great War, briefly set out in a letter to the *JOURNAL* of 28th August, 1916. Two illustrations are given reproduced from original designs, showing statuary groups on the pedestals along the river wall from Blackfriars to Westminster. There are over fifty of various sizes available, placed next the bridges, and at water steps midway. Mr. Hudson proposes that the subjects for the larger groups should be incidents of the greatest prominence in the conflict; on the land side of the boulevard statues of British and principal Allied generals, admirals, &c., to be placed at intervals just inside the railings of the public gardens. The new Charing Cross bridge to play an important part, having a triumphal arch at each end with quadriga on modern lines on the top. Between these at each pier suitable statuary and bas-reliefs. In the Plaza, which seems generally expected to be in front of the entrance to the bridge, a high monumental tower with open sides to be the chief feature. A colossal figure of "Retribution" on the lower stage and "Victory" above; round the base bas-reliefs and tablets. The whole should form a "Place de la Concorde" in London. By means of lifts a magnificent view of the River and the cities of London and Westminster would be obtainable from the top. This part of the scheme would have to be postponed, but the work along the Embankment could be started as soon as peace is declared. Whatever scheme be adopted, the present, in the proposer's view, is the time to decide and prepare, as urged by the late M. Rodin.



9 CONDUIT STREET, LONDON, W., 16th March, 1918.

CHRONICLE.

The Associateship : Special War Regulations.

On the recommendation of the Board of Architectural Education the Council have granted the following temporary concessions to Students R.I.B.A. and others seeking to qualify for Associateship R.I.B.A. :

A. SPECIAL WAR EXEMPTION.

A Student of the R.I.B.A. who has attained the age of at least 21 years, and

(1) has passed the Intermediate Examination of the R.I.B.A., or has passed through a full course at any of the Schools recognised by the R.I.B.A. and has received a certificate which gives exemption from that examination, and
 (2) has served in some full-time employment in His Majesty's Forces during the war for a period of *not less than two years*; or has relinquished his commission or been discharged from service after less than that period owing to wounds or other disability arising from or in such service, shall be held to be qualified for candidature as Associate R.I.B.A., as if he had already passed the Final Examination.

A Student R.I.B.A. must make an application on an official form, accompanied by a remittance of four guineas, which will be returned should his application be refused.

He must also send with his application particulars of his service in His Majesty's Forces, and a certificate from a member of the Royal Institute, or other architect of recognised position, that the Student is a proper person to be admitted to the Associateship.

N.B.—This exemption does not apply to candidates who under the previous concession of November, 1914, have been registered as Students without having either passed the Intermediate Examination or obtained the certificate mentioned under A (1).

B. SPECIAL WAR EXAMINATION.

This examination will be open for three years after the declaration of peace to candidates who have attained the age of at least 21 years and are not eligible for, or desirous of availing themselves of, the Special War Exemption, and

Have served in some full-time employment in His Majesty's Forces during the war for a period of *not less than two years*, or have relinquished their commissions or been discharged from service after less than that period owing to wounds or other disability arising from or in such service.

The examination will be held by the R.I.B.A. twice a year in the months of June and December, or as may be determined from time to time and announced in the official publications of the Royal Institute.

Candidates desirous of entering for this examination and qualifying for candidature as Associate R.I.B.A. must apply on an official form to be obtained from the Institute.

This form must be accompanied by :

- (1) A remittance of six guineas, which will be returned should the application be refused.
- (2) Particulars of service in His Majesty's Forces.
- (3) A certificate from a member of the Royal Institute, or other architect of recognised position, that the applicant is a proper person to be admitted to this examination.

He must also send either with his application form, or before, two Testimonies of Study (Problems in Design) or one Testimony of Study and one Thesis.

The Thesis must be of a practical character, as described under the heading in the KALENDAR, p. 418, "Science as Applied to Building."

The subject selected for the Thesis is to be notified for the approval of the Board two months before the date of the examination, and the Thesis itself is to be submitted four weeks before that date.

If the Testimonies of Study have not previously been submitted to and approved by the Board they must be sent in at least four weeks before the date of the examination for the Board's approval.

All Testimonies of Study submitted for this Special War Examination must be drawn and coloured as working drawings, with, as far as is possible, all construction shown.

The conditions regulating the character of the Thesis and the designs submitted as Testimonies of Study will be insisted upon in view of the omission of the papers on construction, materials, hygiene, etc., from this examination.

Subject to the above conditions the designs may be of

- (1) Problems set by the Board.
- (2) Subjects set in a recognised school.
- (3) Subjects set in the Royal Academy School, provided that the same are approved and initialled by the Visitor.

Candidates who have been awarded the Soane Medallion or the Tite Prize, or who have received a Certificate of Honourable Mention in either of the Competitions, may submit in place of the aforesaid Testimonies of Study their Soane or Tite Designs, and receive marks for same.

The Examination will consist of :

A Design for a building of moderate dimensions, or

a portion of a more important edifice, to be made from particulars given. The drawings to comprise plans, elevations and sections generally to a scale of $\frac{1}{8}$ inch to the foot, details of construction and hygiene to a large scale, with a sketch perspective. The subject will be communicated in general terms to the Candidate some days before the examination.

The Examination will extend over four days and there will be subsequently an Oral Examination on the Design and its construction and the Testimonies of Study, including the Thesis, if any.

The attention of candidates is called to the fact that at the Oral Examination they must be prepared to show good knowledge of materials and of construction, as well as of hygiene (as applied to buildings) and of the general practice of an architect.

The Board of Architectural Education reserve the right to refuse to a candidate who fails in this Special War Examination permission to enter for it a second time.

The general conditions published in the KALENDAR relating to essays, carriage of drawings, entrance fee, etc., apply to this Examination.

The London Society's Development Plan of Greater London.

Members will be glad to have in the JOURNAL Sir Aston Webb's interesting account of the work the London Society are doing in connection with the future development and improvement of London. The occasion was a lecture delivered by Sir Aston before the London Society in the rooms of the Royal Society of Arts on the 1st March.

A development plan (said the lecturer) had been drawn up of Greater London based on the 6-inch Ordnance sheet, brought up to date, showing in detail the road improvements proposed by the Traffic Branch of the Board of Trade, together with the Society's own proposals, adding to them suggestions not only in regard to roads, but also parks, parkways and waterside reservations, open spaces, and other improvements. A committee was formed consisting of Professor Adshead, Messrs. Arthur Crow, W. R. Davidge, H. V. Lanchester, H. J. Leaning and D. Barclay Niven, with Mr. A. E. Richardson as hon. secretary. Those gentlemen worked with great enthusiasm, got together a staff of capable draughtsmen, with Mr. Ernest Herbert at their head, and after two years' strenuous work produced, he believed, for the first time, a map showing a complete scheme for the improvement and development of Greater London. The map measured some 15 feet square and covered some 600 square miles, and had cost over £1,000. The late Edward Stanford generously undertook the reproduction of the map, and since his death the firm were continuing it. On the conclusion of peace it was intended that the plan should be exhibited as the Society's war contribution towards the better ordered development of Greater London in the future. The schemes shown were not merely dreams and ideals—though he hoped those were not absent—but they were the considered proposals of practical men, some of whom had visited all the localities treated. Many of the schemes had long been recognised by a Government Department as urgent, and had been generally agreed to by the local authorities in conference.

Among the suggestions were two large additional parks for the North-West and South-East. To balance Epping Forest on the North-East a great park and reservation was suggested for the North-West; and to balance Bushy and Richmond Parks and Wimbledon Common on the South-West, the acquisition of the beautiful Addington Park and Shirley Woods on the South-East was suggested. In the South-East was also a park at Bexley bordering on the river Cray and lying to the South-East of Woolwich, which would provide recreation for the future industrial development of the district between Woolwich and Dartford. In addition to those important public parks, waterside reservations were suggested, and parkways to link up, as far as possible, the present open spaces. One such course on the West started at Stanmore, took in Harrow Weald Common, passing between Harrow and Pinner down to Hayes, and then following the line of the Colne till it reached the Thames at Isleworth. Another parkway nearly parallel to the last was suggested from the Brent reservoir, and following the line of the Brent past Hendon, Neasden, and so on, to the Thames at Brentford and Kew. Another on the East side followed the Roding through Chipping Ongar and Buckhurst Hill, Woodford, Wanstead, Ilford, to the Thames at Barking. Another still further East was from Romford through Rainham to the Thames. There was another to the South-West of London through Mitcham to Wandsworth on the Wandle, and one on the extreme South-West following the river Mole to Molesey. The Society suggested that the money for these schemes should be obtained by a Park Commission, as had been done in many places in America, with power to levy a small rate on houses overlooking or benefiting from these open spaces. Another suggested improvement was the embanking of the south side of the Thames, a problem which practically included also the treatment of the south side itself. The suggestion was to reclaim the mud banks along the convex shore from Lambeth to the Borough, an average width of some 166 feet, and the formation of an embankment. It was suggested that from the new County Hall to Southwark Bridge there should be a continuous embankment 100 feet wide with a limited introduction of the lagoon lock principle, which might leave the present riverside properties with their present water frontages practically unaltered. East of Southwark Bridge it was thought the width could be reduced to 60 feet roadway, and that some of the warehouses could be taken over the road to the river, producing an effect like the Amsterdam quays. The ascertained cost of construction, £80 to £100 per foot run for the road embankment, would be far more than covered by the value of the reclaimed land. Some such treatment as that suggested would, while giving splendour and dignity to the upper reaches of the river, preserve some of the picturesqueness of the lower reach.

House Planning : The Housewife's Point of View.

A women's sub-committee of the Advisory Council has been appointed by the Minister of Reconstruction to collect information and to give advice on house plans from the point of view of the housewife. The duties with which they have been entrusted are thus defined : "To examine specimen houses and to advise on house plans received from the Architects' Committee; and to report on such questions as internal fittings, position of doors and windows, size and number of rooms, gardens, communal arrangements, and the arrangement of new districts in so far as it may affect the well-being of homes and the convenience of housewives."

Building Licences.

The authority to make orders regulating or restricting the carrying on of building and construction work under Defence of the Realm Regulation 8E has been transferred by Order in Council from the Minister of Munitions to the Minister of National Service. All applications for licences under Order XIV. of 14th July 1916 should in future be addressed to the Secretary (L), Ministry of National Service, S.W.1.

Sir John Soane's Museum.

The Curator desires it to be known that on application to him special facilities are given to students of the Museum, and that a new students' room on the ground floor has been allotted for the purposes of architectural sketching and drawing from the Museum's unique collection of originals and casts from the antique. A series of 14 post-card views of the House and Museum have been prepared and may be obtained at the Museum at the price of 1s. The cards, which are excellent photographic reproductions and very creditably printed, make an exceedingly interesting set.

MINUTES.

At a Special General Meeting held Monday, 4th March, at 4 p.m.—Present: Mr. Henry T. Hare, *President*, in the Chair; 51 Fellows (including 15 members of the Council), 5 Associates (including 2 members of the Council), and a few visitors—the President having announced that the meeting was summoned in accordance with the By-laws to elect the Royal Gold Medallist for the current year, thereupon moved, Mr. E. Guy Dawber, *Hon. Secretary*, seconded, and it was

Resolved, unanimously, that subject to His Majesty's gracious sanction the Royal Gold Medal for the promotion of Architecture be presented this year to Mr. Ernest Newton, A.R.A., in recognition of the merit of his executed work.

The Special General Meeting then terminated.

At a Business General Meeting held Monday, 4th March, following the Special Meeting above-mentioned, and similarly constituted, the Minutes of the meeting held 4th February 1918 were taken as read and signed as correct.

The Hon. Secretary announced the decease of Sir John Wolfe Barry, *Hon. Associate*, elected in 1877, and Francis Bond, *Hon. Associate*, elected in 1896, and it was Resolved that the regrets of the Institute for the loss of these distinguished members be entered on the Minutes, and that a message of the Institute's sympathy and condolence be forwarded to their near relatives.

The decease was also announced of Frederick Montague Gratton, elected Associate in 1881, Fellow in 1893, and placed on the list of Retired Fellows in 1912; Lieutenant-Colonel George Arthur Hamilton Dickson, M.V.O., till lately Diocesan Surveyor of Pretoria, South Africa, elected Associate in 1888 and Fellow in 1915; George Scott Miles, *Licentiate*, and John Clarkson, elected Associate in 1869, and Fellow in 1889.

The following candidates for membership were elected by show of hands under By-law 10:

AS FELLOWS (4).

GREENSLADE: SIDNEY KYFFIN (*Pugin Student, Grissell Medallist, Godwin Bursar, Associate*).
HARRISON: EDWARD LEWIS (*Licentiate*).
JONES: GERALD E. (*Licentiate*).
STEDMAN: ARTHUR J. (*Licentiate*).

AS ASSOCIATE.

CAMERON: KENNETH, 2nd Lieut., R.E.

AS HON. ASSOCIATE.

LESLIE: FRANCIS SEYMOUR, Colonel R.E., retired.

The President announced that in order to save labour and expense the Council proposed, subject to the sanction of the Privy Council, not to hold the Annual Elections this year. Whereupon, on the motion of the President, seconded by Mr. E. Guy Dawber, it was

Resolved, unanimously, That in accordance with the provisions of Clause 33 of the Charter application be made to the Privy Council to sanction the suspension of the By-laws governing the annual election of the Council, the Standing Committees, and the Hon. Auditors so that the Council, *and the Standing Committees, and the Hon. Auditors*, *shall remain in office until the 30th June, 1919*, provided always that the Allied Societies and the Architectural Association shall be represented on the Council by their Presidents in accordance with the By-laws.

Mr. Walter G. Bell, F.R.A.S., having read a Paper on THE REBUILDING OF LONDON AFTER THE GREAT FIRE, a discussion ensued, and on the motion of Mr. Philip Norman, LL.D., F.S.A., seconded by Professor Beresford Pite [F.], a vote of thanks was passed by acclamation to the author.

The meeting separated at 6 p.m.

OBITUARY.

James Bruce, of Newcastle-on-Tyne, whose death was recently announced, had been a Fellow of the Institute since 1907. He was also a member of the Northern Architectural Association for a long time, and for some years acted as their honorary librarian. Until a few years ago he was in partnership with the late Mr. H. G. Badenoch, under the style of Badenoch and Bruce, and they were responsible for a great deal of work in the district. Mr. Bruce had travelled abroad considerably. He possessed a unique and wide knowledge of architectural books, and his services were much sought after and readily given to architectural students.

NOTICES.

A Special General Meeting will be held Monday, 25th March, 1918, at 5 p.m., for the purpose of confirming the Resolution relating to the suspension of By-laws passed at the Business General Meeting of the 4th March, and set out in the Minutes of that meeting, above printed.

Informal Conference, 17th April, at 5 p.m.

RELATIONS OF ARCHITECTURE AND ENGINEERING.

Professor W. R. LETHABY will open the discussion.

Principal Contents of this Issue.

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Correspondence.	115
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REPORT OF THE COUNCIL FOR THE OFFICIAL YEAR 1917-1918.

SINCE the publication of the last Annual Report the Council have held 22 Meetings.

The following Committees appointed by the Council have met and reported from time to time on the matters referred to them :—

Board of Architectural Education.

Competitions Committee.

Fellowship Drawings Committee.

Finance and House Committee.

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Town Planning Committee.

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Building after the War Conference.

Architects' War Committee and Sub-Committees.

Charing Cross Bridge Committee.

Informal Conferences and Sessional Papers Committee.

Brief particulars of the work of some of these Committees are embodied in this Report under various headings.

Obituary. The losses by death have been as follows :—

FELLOWS.

Barclay : David.

Bruce : James.

Chancellor : Frederick.

Clarke : Howard Chatfield.

Clarkson : John.

Dickson : Lt.-Col. George Arthur

Hamilton, M.V.O.

Haywood-Farmer : Edward.

Hills : Walter Augustus.

Horsley : Gerald Cellcott.

Murzban : Khan Bahadur Muncherjee

Cowasjee.

Shoppes : Charles Herbert.

Weymouth : Richard Henry.

ASSOCIATES.

Pryce : Thomas Edward.

Scott : Walter.

Pennington : Thomas Frederick.

Spens : Walter Lewis.

Streater : Edwin Frederick William.

Davidson : William Campbell.

Goldsack : Walter.

Lemon : John.

RETIRED FELLOWS.

Gration : Frederick Montague.

Henman : William.

HONORARY ASSOCIATES.

Jacob : Sir Swinton.

Wolfe-Berry : Sir John Wolfe.

HONORARY CORRESPONDING MEMBERS.

Ferrin : Sainte Marie (France).

In addition to these normal losses the Council have to record the loss of 1 Fellow, 18 Associates, 8 Licentiates, and 14 Students who have fallen in the War. Particulars of these are given on a later page of this Report.

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RESOLVED, unanimously, that subject to His Majesty's gracious sanction the Royal Gold Medal for the promotion of Architecture be presented this year to Mr. Ernest Newton, A.R.A., in recognition of the merit of his executed work.

The Special General Meeting then terminated.

At a Business General Meeting held 11th March, following the Special : and similarly constituted, the Minutes of the meeting held 4th February 1918 were taken as read and signed as correct.

The Hon. Secretary announced the decease of Sir John Wolfe Barry, *Hon. Associate*, elected in 1877, and Francis Bond, *Hon. Associate*, elected in 1896, and it was Resolved that the regrets of the Institute for the loss of these distinguished members be entered on the Minutes, and that a message of the Institute's sympathy and condolence be forwarded to their near relatives.

The decease was also announced of Frederick Montague Gratton, elected Associate in 1881, Fellow in 1893, and placed on the list of Retired Fellows in 1912; Lieut.-Colonel George Arthur Hamilton Dickson, M.V.O., till lately Diocesan Surveyor of Pretoria, South Africa, elected Associate in 1888 and Fellow in 1915; George Scott Miles, *Licentiate*, and John Clarkson, elected Associate in 1869, and Fellow in 1889.

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STEDMAN: ARTHUR J. (*Licentiate*).

As Associate.

CAMERON: KENNETH, 2nd Lieut., R.E.

As Hon. Associate.

LESLIE: FRANCIS SEYMOUR, Colonel R.E., retired.

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NOTICES.

A Special General Meeting will be held Monday, 25th March, 1918, at 5 p.m., for the purpose of confirming the Resolution relating to the suspension of By-laws passed at the Business General Meeting of the 4th March, and set out in the Minutes of that meeting, above printed.

Informal Conference, 17th April, at 5 p.m.

RELATIONS OF ARCHITECTURE AND ENGINEERING.

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SINCE the publication of the last Annual Report the Council have held 22 Meetings.

The following Committees appointed by the Council have met and reported from time to time on the matters referred to them :—

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Fellowship Drawings Committee.	Housing Committee.
Finance and House Committee.	Hon. Members Committee.
Royal Gold Medal Committee.	Building after the War Conference.
Town Planning Committee.	Architects' War Committee and Sub-Committees.
Selection and General Purposes Committee.	Charing Cross Bridge Committee.
Conditions of Contract Revision Committee.	Informal Conferences and Sessional Papers Committee.

Brief particulars of the work of some of these Committees are embodied in this Report under various headings.

Obituary. The losses by death have been as follows :—

FELLOWS.

Barclay : David.	Dickson : Lt.-Col. George Arthur Hamilton, M.V.O.	Murzban : Khan Bahadur Muncherjee Cowasjee.
Bruce : James.	Haywood-Farmer : Edward.	Shoppee : Charles Herbert.
Chancellor : Frederick.	Hills : Walter Augustus.	Weymouth : Richard Henry.
Clarke : Howard Chatfeild.	Hersley : Gerald Caldecott.	
Clarkson : John.		

ASSOCIATES.

Pennington : Thomas Frederick.	Pryce : Thomas Edward.	Scott : Walter.
Spiers : Walter Lewis.		

LICENTIATES.

Davidson : William Campbell.	Mayor : R. Yates.	Streeter : Edwin Frederick William.
Goldstraw : Walter.	Miles : George Scott.	
Lemm : John.	Ross : James McGlashen.	

RETIR'D FELLOWS.

Gratton : Frederick Montague.	Henman : William.
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HONORARY ASSOCIATES.

Bond : Francis.	Jacob : Sir Swinton.	Wolfe-Barry : Sir John Wolfe.
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HONORARY CORRESPONDING MEMBER.

Perrin : Sainte Marie (France).

In addition to these normal losses the Council have to record the loss of 1 Fellow, 18 Associates, 8 Licentiates, and 14 Students who have fallen in the War. Particulars of these are given on a later page of this Report.

Membership. The following table shows the present subscribing membership of the Royal Institute compared with the preceding five years:—

	Fellows.	Associates.	Hon. Associates.	Total.
1913	847	1,630	54	2,531
1914	852	1,695	56	2,603
1915	857	1,713	54	2,624
1916	852	1,679	52	2,583
1917	842	1,656	48	2,546
1918	838	1,631	45	2,514

During the official year since the last Annual General Meeting 19 Fellows and 10 Associates have been elected, as against 19 Fellows and 23 Associates the previous year.

Licentiates. There are now 1,822 Licentiates on the roll as against 1,890 last year. Since the publication of the last Annual Report 10 Licentiates have passed the Examination qualifying for election to the Fellowship, and 9 of these have been duly elected as Fellows.

The Examinations. During the year 47 candidates for Probationership have taken advantage of the new Regulations and have furnished to the Council satisfactory evidence of their attainments and been registered as Probationers.

The Intermediate and Final Examinations have been held once only during the official year—viz., in June. The following table, giving the results of the Examinations, shows that 34 Students have been added to the Register during the year, and that 4 candidates have passed the Examination qualifying for Associateship:—

	Exempted.	Examined.	Passed.	Relegated.
INTERMEDIATE EXAMINATION	31	6	3	3
FINAL AND SPECIAL EXAMINATIONS	—	13	4	9

The Statutory Examination qualifying for candidature as District Surveyor in London, or as Building Surveyor under Local Authorities, was held in October, and resulted in the passing of one candidate.

The Council tender their grateful acknowledgments to the Honorary Examiners for their services.

Arbitrators. During the year the President has appointed the following members to act as Arbitrators in connection with building disputes:—

Mr. W. Chas. Waymouth.	Mr. John W. Simpson.	Mr. H. D. Searles Wood.
Mr. E. M. Gibbs.	Mr. J. Coulson Nicol.	Mr. Arthur Keen.

Grants. Since the issue of the last Annual Report the Council have made the following grants:—

Architectural Association	£100 0 0	London Society (towards expenses of
Architects' Benevolent Society	100 0 0	Charing Cross Bridge Bill Petition) £26 5 0
Board of Scientific Societies	20 0 0	British School at Rome 3 3 0

Royal Gold Medal. The Royal Gold Medal for Architecture was awarded to the eminent French architect, M. Henri Paul Nénot, *Membre de l'Institut*, architect of the New Sorbonne, Paris [Hon. Corr. M.].

M. Nénot unfortunately was prevented by illness from attending in person to receive the Medal, and it was received on his behalf by the French Ambassador, through the agency of M. Adrien Thierry, First Secretary of the Embassy.

The Medal this year is to be awarded to Mr. Ernest Newton, A.R.A., *Past President*, in recognition of the merit of his executed work. His Majesty has graciously signified his approval of the award.

Presentation of Mr. Newton's Portrait. Mr. Newton's portrait, painted by Mr. Arthur Hacker, R.A., which was in the Royal Academy Exhibition of 1916, was formally presented to the Institute on the occasion of Mr. Newton's retirement from the Chair last June.

The R.I.B.A. Roll of Honour. Members who have joined the Forces since the outbreak of War now number 79 Fellows, 536 Associates, 333 Licentiates, and 300 Students. Since the last Annual Report the following have fallen:—

	FELLOW.	
LINES : ROLAND WALTER	Lieut., Canadian Expeditionary Force	Killed in action.
	ASSOCIATES,	
ALEXANDER : GEORGE LUARD	Capt., London Regt. (attached Staff)	Killed in action.

CALLENDER: GEORGE WILFRED	Lieut., Royal Engineers.	Killed in action.
CLARK: WALTER LINWELLYN	Capt., Royal Flying Corps	Killed in action.
COWDELL: CHARLES JOSEPH MORTON	2nd Lieut., Royal Engineers	Killed in action.
EATON: CHARLES WILLIAM	Capt., Leicester Regt.	Died of wounds.
GUTTERIDGE: RICHARD HOWARD	2nd Lieut., London Regt.	Killed in action.
HILL: CLAUDE EDGAR	Staff-Sergt., Royal Army Medical Corps	Killed in action.
HOUSTON: WILLIAM WYLIE	2nd Lieut., Royal Engineers	Killed in action.
LOVELL: CHARLES ERNEST	Lieut., Royal Engineers.	Killed in action.
MANN: HENRY WILLIAM	2nd Lieut., R.F.A.	Killed in action.
MEIKLEHAM: DAVID LANG	Lce.-Corpl., Royal Engineers	Killed in action.
PONTON: HAROLD FREDERICK	—	Killed in action.
RIGG: WILLIAM ARTHUR	Public Schools Brigade	Killed in action.
ROGERS: CECIL WALTER	2nd Lieut., Royal West Surrey Regt.	Died of wounds.
SHEARS: REGINALD	London Regt.	Missing, believed killed.
TAYLOR: HERBERT SAMUEL	2nd Lieut., Oxford & Bucks Light Infantry	Killed in action.
WARRY: JOHN LUCAS	2nd Lieut., Rifle Brigade	Died of wounds.
WRIGHT: CECIL LAWRENCE	2nd Lieut., Royal Garrison Artillery	Killed in action.

LICENTIATES.

ATKINSON: BEAUMONT ELLIS, Junr.	Lce.-Corpl., Middlesex Regt.	Killed in action.
BARKER: THOMAS CHRISTOPHER	Yorks Regt.	Accidentally killed.
BLACKBURN-DANIELL: GEORGE FRANCIS	2nd Lieut., Royal Fusiliers	Killed in action.
FLOWER: VICTOR AUGUSTINE, D.S.O.	Lieut.-Col., London Regt.	Killed in action.
GARRATT: EDWARD	—	Killed in action.
O'BRIEN: EDWARD	Royal Army Medical Corps	Died on service.
TUCKER: ARTHUR HAINES	Lieut., Royal Sussex Regt.	Killed in action.
WILSON: JOHN HARDY	2nd Lieut., Sherwood Foresters	Killed in action.

STUDENTS AND PROBATIONERS.

ADAMS: HENRY EUSTACE	Rifle Brigade	—
APPLEBY: SIDNEY DERRICK	2nd Lieut., Loyal North Lancashire Regt.	Missing, believed killed.
BELL: EDGAR ALAN	Lce. Corpl., Staffs Regt.	Died of wounds.
BEVILLE: ALFRED GEOFREY	2nd Lieut., London Regt.	Killed in action.
BRUNNED: HENRY CARLETON	Lieut. (acting Capt.), Lancs. Fusiliers	Killed in action.
DAVISON: W. RUPERT	Middlesex Regt.	Killed in action.
FREAKER: ALLEN LIONEL	Sergt., London Regt.	Killed in action.
GASCOYNE: CHARLES	Capt., Sherwood Foresters	Died of wounds in Germany.
GASKELL: REGINALD ROBINSON	Lieut., Royal Flying Corps	Accidentally killed.
MCLEAN: JAMES MONTEITH	2nd Lieut., Highland Light Infantry	Killed in action.
MATTHEWS: JOHN BERDEL, M.C.	Capt., North Staffs Regt.	Killed in action.
MOODIE: JOHN	2nd Lieut., Seaforth Highlanders	Died of wounds.
STUART: ALEXANDER D.	Lieut., Seaforth Highlanders	Killed in action.
WRAY: ERNEST WARNEFORD	2nd Lieut., Royal Engineers	Killed in action.

Altogether, the Institute has lost in the War 1 Hon. Fellow, 1 Hon. Associate, 5 Fellows, 55 Associates, 17 Licentiates, and 37 Students.

The Council recall with pride the brilliant positions achieved in a wholly unexpected career by members of the Institute, and the many distinctions won by members and students for conspicuous bravery and gallant and distinguished service in the field. The following have been noted in the *Gazette* or have been intimated to the Secretary; there are doubtless many others:

V.C.—Capt. E. N. F. Bell [*Student*].

C.B., C.M.G.—Brig.-Gen. Charles Rosenthal [*A.*].

C.M.G.—Brig.-Gen. A. B. Hubback [*F.*].

D.S.O.—Lieut.-Col. J. Maurice Arthur [*Licentiate*]; Lieut.-Col. A. W. Brewill [*F.*]; Lieut.-Col. T. Cecil Howitt [*A.*]; Lieut.-Col. Victor A. Flower [*Licentiate*], since killed; Lieut.-Col. John Brown [*Licentiate*]; Major H. Phillips Fletcher, *Croix de Guerre* [*F.*], since accidentally killed; Major H. P. G. Maule, M.C. [*F.*].

M.C.—Major P. G. Fry [*Licentiate*]; Capt. Basil White Ridley [*A.*]; Capt. P. Hubert Keys [*A.*], Capt. A. M. Barrowcliff [*Student*]; Capt. S. H. Fisher [*A.*]; Capt. H. G. Wicks [*Student*]; Capt. G. E. Clouting [*A.*]; Capt. H. E. Moore [*A.*]; Capt. D. McL. Craik [*F.*]; Capt. H. C. Atkin-Berry [*Student*]; Capt. W. N. J. Moscrop [*Student*]; Capt.

H. L. Fetherstonhaugh [A.]; Capt. Percy T. Runton [A.]; Capt. F. W. Moore [A.]; Lieut. L. A. Culliford [A.]; Lieut. W. G. Newton [A.]; Lieut. C. H. Calvert [A.]; Lieut. W. H. Hillyer [Student]; Lieut. G. H. Jones [A.]; Lieut. H. W. Mann [A.]; Lieut. E. A. Rahles Rahbula [A.]; Lieut. A. M. Durrant [A.]; Lieut. Gordon Leith [A.]; Lieut. H. S. Triscott [A.], with bar; Lieut. John Woollatt [A.]; Lieut. J. H. Gibbons [A.]; Lieut. Wilfrid L. Mellor [A.]

Croix de Guerre.—Commandant Christopher Groves [A.], French Army.

Appointments. During the Session the Council have made the following appointments of members to represent the Institute on the various bodies or for the purposes indicated:—

Mr. Reginald Blomfield, R.A., reappointed as a Member of the Council of the British School at Rome.

Mr. Henry Hartley reappointed as a Member of the Court of the University of Liverpool.

Mr. Mowbray A. Green reappointed as a Member of the Court of the University of Bristol.

Mr. H. D. Searles-Wood reappointed as a Member of the Sanitary Inspectors' Examination Board.

The President and Mr. Searles-Wood were appointed to represent the Institute at the Conference for London, Greater London, and the Home Counties on Housing and Town Planning.

Mr. H. V. Lanchester and Professor Adshead were appointed to represent the Institute on the Government Committee considering the question of the establishment of a Standing Committee of Professional Bodies in connection with the Board of Education.

Mr. A. N. Prentice and Mr. Walter Tapper were appointed to represent the Institute on the Imperial Institute Committee on Indian and Colonial Marbles.

Mr. Alan E. Munby, Mr. W. E. Vernon Crompton, and Mr. Digby Solomon were appointed to represent the Institute on the Imperial Institute Committee on Corrosion of Brass.

The President, the Hon. Secretary, Mr. Arthur Keen, Professor Beresford Pite, and Professor Lethaby were appointed a deputation to interview the Education Authority in connection with the subject of training in Secondary Schools.

Informal Conferences. The Informal Conferences on subjects of interest to the profession, which proved so useful and successful last session, have been continued in the present. The Council wish particularly to record their sense of obligation to Mr. Sidney Webb for the valuable discourse delivered on the 22nd November on "The Function of an Architectural Society" (JOURNAL, Dec. 1917). They commend as of vital moment to the Institute the ideas he expresses as to the part professional associations should play in the world—what they can do, and what they ought not to do. The subjects of the other conferences include "Unity of the Profession," "Co-operation amongst Architects and Specialisation," "National Housing and National Life," "Quality of Work and the Present System of Competitive Tendering" (conference with builders and workmen), "Proposed Parliament of Building Trades." The conferences announced to take place with public men and writers on "The Need for a National Policy of Town Improvement" and with engineers on "The Relations of Architecture and Engineering" have been postponed.

The Council are indebted to Mr. Walter G. Bell, F.R.A.S., for the valuable and interesting Paper on "The Rebuilding of London after the Great Fire," read at the meeting of the 4th March, and to be published later in the JOURNAL.

Housing of the Working Classes. In the autumn recess last year a Committee consisting of members of the Institute and representatives of Allied Societies was constituted by the Council to consider the whole

question of housing of the industrial classes from the architect's point of view, and to send a deputation to the Local Government Board. Among matters considered were the place of the architect in connection with housing operations proposed to be undertaken by Local Authorities, and the means whereby the Central Authority could control the schemes of Local Authorities so as to ensure that the best results are attained. A resolution was passed urging upon the Local Government Board that consideration should only be given to housing schemes where the plans had been prepared by persons properly qualified as architects both in the design and in the architectural lay-out and grouping of buildings; further, that the names and qualifications of such persons should be

submitted to and approved by the Local Government Board before the schemes were sanctioned. Both the President and Sir Aston Webb, as members of Committees formed by the Government to discuss in connection with the housing question building construction, materials, &c., have had the opportunity of pressing upon the Local Government Board the desirability in the interests of the public of employing competent architects and giving them practically a free hand from the start, not only in the design of the houses themselves, but in the general lay-out of the area to be dealt with. It is satisfactory to mention that the Local Government Board have lent a favourable ear to their representations and have declared their intention of securing the employment of architects in housing schemes over which they have control.

Among other matters the Institute Housing Committee had arranged to discuss were economy of lay-out and cheaper construction, standardisation of parts, materials, despatch in erection, building by-laws, &c. It became, however, unnecessary for the Committee to pursue these inquiries as later in the year the Government decided to take the matter up, and the Council were asked to appoint representatives to give evidence on these questions before the various Government Committees.

**Government
Housing
Schemes.** The Local Government Board having invited the Institute's assistance in obtaining the best typical plans of houses for the industrial classes and placed at the Institute's disposal a sum of money for the purpose, the Council organised a series of competitions to be conducted simultaneously throughout the country by the Institute and the Allied Societies. The plans so obtained are to serve as guides to local authorities and others, and to be used as instructions to the architects employed on the schemes. In choosing the method of obtaining designs by competition rather than by commissioning a few architects to prepare them, the Council were actuated by the consideration that while the war lasts architects had little prospect of practising, and that the premiums awarded to the successful competitors were fully adequate to compensate for the exceptional conditions; further, that architects serving at the Front would have their share of the work when peace is restored and they are released from service.

The results of the Competitions have been announced, but statistics may be usefully recorded here of the numbers who took part and of the designs received in the various areas:—

Area.		Number of Competitors.	Designs received.
Home Counties	.	336	686
Northern	.	100	226
Liverpool and Manchester	.	132	301
Midland	.	107	248
South-West	.	67	169
South Wales	.	66	158
		<hr/> 808	<hr/> 1,788

**Architects and
Government
Departments.** Members will recall that when the National Service Scheme was first set on foot a deputation from the Institute waited upon the Director and suggested ways in which the services of architects might be utilised for the benefit of the State; at the same time the entire organisation of the Institute and the services of architects were freely placed at the Government's disposal. The offer has been accepted in various ways, and the Council have the satisfaction to report that frequent reference has been made to them by Government Departments on questions connected with the building industry. Architects have also been appointed to positions in various Departments of the Government, notably at the Local Government Board, the Ministry of Munitions, the Ministry of Reconstruction, the Ministry of Works, the Board of Trade, and the Ministry of National Service.

Mr. Ernest Newton, A.R.A., has been transferred to the Ministry of National Service, where he is in charge of the branch dealing with Building Licences.

The President is also at the Ministry of National Service filling the position of Technical Adviser to the Building Section.

Various inspectorships in connection with Mr. Newton's Department are held by architects.

On the nomination of the President at the request of the Local Government Board, Sir Aston Webb was appointed representative of the Institute on the Advisory Council set up by the Government to consider questions of building construction and methods of securing economy and despatch in the building of working-class houses that will be needed after the war.

Mr. H. D. Searles-Wood has been appointed Adviser to the Board of Trade on the Reconstruction of the Building Industry.

On the application of the Local Government Board the President was appointed to give evidence before the Housing (Building Construction) Committee of that Department.

The following have been appointed to represent the Institute and to give evidence at an inquiry conducted by the Building Materials Supply Committee of the Ministry of Reconstruction :—The President, Mr. John W. Simpson, Mr. Paul Waterhouse.

The following have been appointed to give evidence on Building By-laws before a committee of the Local Government Board :—Professor Beresford Pite, Mr. S. Perkins Pick (Leicester), Mr. H. D. Searles-Wood, and Mr. W. R. Davidge.

War Time Employment for Architects. The scheme of Civic Surveys has continued in operation during the year and provided employment for architects in the areas of Greater London, South Lancashire (Liverpool and Manchester) and South Yorkshire (Leeds). The number of workers has diminished

gradually throughout the year, in consequence of most of those who were engaged having found employment either in Government offices or elsewhere. There are now twenty-seven architects at work in the three areas.

The services of the members of the Civic Survey of Greater London have been utilised to a considerable extent by the Air Board in executing tracings of aeroplane parts which were urgently needed for the speedy production of aeroplanes.

Independently of the Civic Surveys a considerable number of appointments have been found for other applicants, and this work is still in progress.

The Institute continues to provide accommodation and clerical assistance and to defray other expenses in connection with the War Committee and the Civic Surveys, at a cost during the past year of £255.

Representations were made to the Reconstruction Committee of the Board of Control that it would be of great assistance to asylum architects whose work had been stopped if the Board would pass the preliminary plans so that the working drawings for the erection and extension of asylums could be completed in readiness for the work of building immediately after the war. A sympathetic reply was received, and later the Institute was informed that the Board of Control had adopted the suggestion and had passed the plans of certain special buildings for the purpose desired.

Building after the War Conference. A Conference of representatives of the professional institutions of Architects, Surveyors and Builders has been called by the President to discuss problems relating to the reconstruction after the war of the professions and trades connected with architecture and building, a primary object being to assist the authorities in re-starting the building and kindred industries immedately peace is restored. Endeavour will be made to induce the Government to encourage employers to apply for the release, in advance of general demobilisation, of the managers and organisers of professional, commercial and industrial concerns, so that they may re-organise the various businesses with which they were connected before the war and get them into an efficient state to deal promptly with the conditions that will obtain after the war. The Conference is also pressing the desirability of an early relaxation of the present administrative restrictions on building and building materials.

**Town
Planning
Schemes.**

By the system of Press cuttings inaugurated last year at the suggestion of the Town Planning Committee the Council have received early intimation of every town planning and improvement scheme in contemplation throughout the country, and a memorandum emphasizing the need for efficient architectural advice has been at once sent from the Institute to the local authorities concerned. At the same time the Allied Society of the district has been communicated with in order that united effort may be made to secure the appointment of architects to collaborate with the municipal officials in the preparation of the scheme. It is satisfactory to state that the Council have received from municipal authorities many gratifying expressions of appreciation of the advice tendered them, and it may be confidently anticipated that in the future the claims of architects to act as expert advisers in matters of town development and improvement will become more and more generally recognised.

**Charing
Cross
Bridge.** The South Eastern and Chatham Railway Company's Bill for altering and strengthening Charing Cross Bridge having passed the House of Commons and been sent up to the Lords, the Institute, in conjunction with the London Society, petitioned against it, and were heard by counsel before a Select Committee of the House. Evidence on behalf of the petitioners was given to such good purpose by Sir Aston Webb, the Earl of Plymouth, Lord Ribblesdale, and Mr. Burns that the Committee introduced provisions into the Bill to ensure that every opportunity should be given to the authorities to consider the possibilities of the great scheme of improvement which the Institute advocates for this neighbourhood before any large expenditure is permitted on the present bridge and station.

**General
Education
and the
Building
Industry.**

In view of the future educational policy of the Government, as foreshadowed in Mr. Fisher's statement in the House of Commons last summer, a memorial was addressed on behalf of the Council to the President of the Board of Education pointing out that from experience gained in the Institute Examinations it was felt that the type of general education leading up to architecture and kindred callings required to be very greatly improved if it is to develop on the best lines the mental outlook demanded in all who are engaged in the building industries. The memorial, touching also on the wider aspect of the national attitude towards corporate life and the demands of civilisation, showed that the improvements suggested in education would be of value not only as preparatory to the exercise of the callings connected with building but from the point of view also of general culture. Later in the session the Council, at the invitation of the Board of Education, sent representatives to discuss the Institute's suggestions with the Chief Inspector of Secondary Schools. As a result of the interview, assurances have been given that the Education Authority in revising the existing school curriculum will have regard to the views of the Institute, and that as far as practicable endeavour will be made to give effect to them.

**National War
Museum.** The Council, realising the unique opportunity the proposed National War Museum would afford for a national and imperial architectural monument worthy of the events it would commemorate, addressed the Government on the subject, urging that when the time came for considering the means of procuring designs the most desirable procedure would be by a competition open to architects of the whole Empire, and offering to assist in the organisation if such a competition were decided on. The First Commissioner of Works, in reply, promised that the Institute's suggestion should be kept in mind, and that he would receive a deputation to discuss the matter when the time was ripe to take definite action.

**The Institute
and the
Allied
Societies.**

A Joint Committee of representatives of the Allied Societies and of the Institute was appointed by the Council to consider a number of suggestions put forward at a conference of representatives of Allied Societies held at Manchester in April 1917 for raising the status of architects and improving the relations of the non-Metropolitan Societies with the parent body in London. Meetings of the Joint Committee have been held in London, Man-

chester and Birmingham, and resolutions have been passed embodying suggestions and recommendations, some of which are already in process of being given effect to, and others are to receive the Council's careful and sympathetic consideration. The meetings in the Allied Centres have been of a very cordial nature. The discussions have traversed a wide field, and opportunity has been afforded for an interchange of ideas which the Council feel will have excellent results not only for the unity of the profession with which the resolutions were mainly concerned but also for the advancement of architecture which it is the Institute's mission to further.

Revised Form of Contract. The Committee for the Revision of the Conditions of Contract have completed their labours, and the draft revised Form will be submitted for the opinion of the Institute

solicitors. The Committee report that they have held 39 meetings, and have considered the task entrusted to them in the light of recent legal discussions and of the various difficulties in connection with the existing Form which have been before the Practice Standing Committee from time to time. They also acknowledge their indebtedness to the Forms used by various public bodies and practising architects. The Revised Form will be submitted for the sanction of the General Body at the earliest convenient date.

Suspension of By-Laws. In order to save the expense and labour involved in the Annual Elections, the Council brought forward a proposition, which has been assented to by the General Body, that the elections should not take place this year, and that the present Council and Standing Committees should continue in office, an exception being made in the case of the representation of the Allied Societies and the Architectural Association, which are to be represented by their Presidents in accordance with the By-laws. Application has been made to the Privy Council to sanction the suspension of certain By-laws to enable the proposition to be given effect to.

The Great Pyramid of Gizeh. The attention of the Council having been drawn to a scheme promoted by an American society to erect a school in such close proximity to the Great Pyramid of Gizeh that no one could look at the monument without having the school buildings thrust upon his notice—the promoters frankly avowing that the Pyramid was to serve as an advertisement for the school—the Council appealed to the Secretary of State for Foreign Affairs to intervene with the Egyptian Government to prevent a site of such supreme historical and archaeological interest being desecrated in the way proposed. A reply from the Foreign Office stated that the letter had been communicated to Sir F. Wingate, H.M. High Commissioner for Egypt, and that he had given the assurance that the Egyptian Government disapproved of the scheme and that it had been abandoned.

Scheduling of Air Raid Refuges. The President has approached the Chief Commissioner of Police with suggestions in connection with the steps to be taken for scheduling buildings which are relatively safe as

refuges for the public during air raids. He proposed that there should be enlisted for the work the assistance of District Surveyors, whose duties render them familiar with the construction of all modern buildings in their districts and with many of the older ones, and that they should be assisted by architects and surveyors, whose training and experience especially qualified them to inspect and report. It was further suggested that the owners and occupiers of buildings reported relatively safe should be asked to consent to the public in an emergency taking refuge in them. Attention was also called to the desirability of rendering the lift-wells of Tube Stations safe by means of sand-bags or other protection. A reply has been received stating that the suggestions would be laid before the Committee which has been appointed to advise the Police Authority as to the safety of air-raid shelters.*

Maddox Street Galleries. The Institute Galleries at the rear of No. 9, Conduit Street were commandeered by the Government for a few weeks for the temporary accommodation of the Canadian Forestry Corps. A claim by the Council for compensation for the use of the Galleries has been presented and is being considered by the Office of Works.

*This Committee consists of Sir Alexander Stenning [F.], Chairman, Mr. G. C. T. Monson [F.], Mr. C. FitzRoy Doll [F.], Mr. Dendy Watney, Mr. Horace Cheston [F.], and Mr. H. Percy Monckton [F.]

Finances. During the period under review the loss of income through the remission of subscriptions of members serving with the Forces has amounted to nearly £1,150. Substantial economies, however, have been effected in all departments of expenditure, and a satisfactory drop will be observed in the bank overdraft compared with 1916 when the maximum was £361 higher. The net result for the year 1917 is a balance of £241 income over expenditure. A table is appended showing in round figures the sum of the principal items of income and expenditure in the year before the war, and since :—

	1913.	1914.	1915.	1916.	1917.
Income	£12,869	£14,114	£10,740	£8,294	£7,376
Expenditure	11,567	11,391	10,020	7,882	7,135
Surplus	1,302	*2,722	719	412	241
Bank overdraft	£4,846	£2,707	£2,044	£1,900	£1,639
Subscriptions	9,097	9,192	8,193	7,047	6,648
Examination fees	1,633	1,169	749	317	306
Examination expenses	357	353	237	84	64
Rent from tenants	392	454	85	80	80
Grants	534	1,148	1,501	474	249
Journal	2,129	1,804	1,531	1,118	977
Income from advertisements and sale of publications	1,746	1,647	1,179	610	325
General printing, &c.	1,115	944	694	449	304
Subscriptions in arrear	776	1,063	1,169	1,946	2,870

* Increase due to final dividend from Architectural Union Company on liquidation.

R.I.B.A. Staff The Council deeply regret to record the death in action of Private William Fincher, London on Service. Regiment, for thirteen years office attendant at the Institute.

The Secretary is holding a commission in the Royal Defence Corps (home service), the Chief Clerk is in the Army Pay Department, and others are serving abroad. The Council continue to supplement their military pay so that their incomes may not be less than their civilian salaries.

REPORT OF THE BOARD OF ARCHITECTURAL EDUCATION.

The Board have held seven meetings since the issue of the last Annual Report.

At the first meeting of the new Board Mr. Paul Waterhouse was elected Chairman, Mr. Lewis Solomon and Professor W. R. Lethaby, Vice-Chairmen, and Mr. Arthur Keen Hon. Secretary.

The Board have to record with great regret the death of Mr. Gerald Horsley, who acted as Hon. Secretary to the Board from August 1913 to June 1917.

Committees.—The following Committees have met and reported from time to time on the matters referred to them :—Testimonies of Study, Examinations, Exemptions, Examinations in India.

Problems in Design.—During the year 54 designs have been received and adjudicated on, and of these 38 have been approved. The proportion of approved designs compares favourably with previous years.

The Examinations.—The Board have conducted the Intermediate, Final and Special Examinations as usual, and the results as reported to the Council have been published.

Examinations after the War.—The Board notice with pleasure that the Council have approved a scheme prepared by the Board for (1) exemption and (2) examination after the War of Students and others now serving with the Colours. Full particulars of the scheme will be found in the March number of the JOURNAL.

Education of the Architect.—The Council have referred to the Board the resolutions of the Informal Conferences held last Session suggesting that they should be considered in the light of the criticism passed by the Conferences on the existing system of education and examination, and the subject is now under consideration.

Examinations in India.—The questions of architectural education and examination in India are being considered by the Board.

REPORT OF THE ART STANDING COMMITTEE.

Mr. Arthur Keen was elected Chairman and Messrs. W. A. Forsyth and C. E. Sayer Honorary Secretaries.

The following important subjects were dealt with amongst other matters :—

The unsuccessful efforts of the Institute as shown by the correspondence with the Ecclesiastical Commissioners, "trustees for the sale," in securing the retention of St. Alphage Church, London Wall, induced the Committee further to consider the question of the sale of City Church sites. While it was felt that the services of the R.I.B.A. may usefully be placed at the disposal of the Diocesan authority in the early consideration of these problems, the hope was unanimously expressed that the architectural and historical interest should take precedence of the claims of site values and of the emoluments yielded by the union of benefices. Members are therefore requested to keep the Council informed as to the occasions when the Institute might make representations to the authorities concerned.

Arising from correspondence with the Editor of *The Field*, the important question of War Memorials was carefully considered. Amongst many suggestions, the Committee recommended that the general treatment should be traditional yet distinctive and that local material and craftsmanship, where suitable, should be used. Simplicity and durability are essential qualities. Inscriptions should be legible and of refined text. Memorials should, if possible, bear some structural relationship to the buildings to which they may be attached. Scale, proportion and colour are important factors. All memorials of this greatest war of all time should, if possible, possess one common feature distinguishing them from memorials of previous wars. The further suggestion was made that the promoters of large public Memorial Schemes should seek the assistance of the R.I.B.A. in conjunction with their own professional advisers.

As a result of one of the Informal Conferences, the subject of the Control of Street Architecture was referred by the Council to the Committee for furthering the conclusions of the Conference. The Art Committee recommended that the Council appoint a strong and representative committee to take steps to arouse interest with architects and others concerned by means of a further discussion and the issue of an illustrated report, showing the advantages of direction or control in street design. The rebuilding of streets following the Napoleonic wars is a distinctive historic record in British Architecture, and it is felt that the time has come when early consideration should be given to the lines governing the treatment of future street frontage in English towns, and especially in London, which will reflect the outcome of the great European War of the twentieth century. The Council has decided to appoint a Committee for this purpose.

Understanding that the demolition of St. Olave's Church, Southwark, had been decided upon, and that there was no hope of retaining the building on its present site, the Art Committee have supported the London County Council in its action to secure from the promoters of the Bill before Parliament provisions for the re-erection of the Church on another site under qualified supervision.

REPORT OF THE PRACTICE STANDING COMMITTEE.

The elected officers were :—Chairman, Mr. W. H. Atkin-Berry; Vice-Chairman, Mr. W. Gillbee Scott; Hon. Secretaries, Messrs. Percival M. Fraser and A. Saxon Snell.

Expert Advice and Architects' Charges in relation thereto.—The Committee's report on this matter was duly laid before the Council. This report, dealing with matters of the greatest importance, was circulated among the Allied Societies. It has recently been referred back with their comments to the Practice Committee and is now being reconsidered.

Sub-Committees.—The Professional Conduct and the Scale of Charges Sub-Committees were reappointed. The Sub-Committee on Scale of Charges have held about thirteen meetings and have before them many important matters which are still under consideration. The Sub-Committee on Professional Conduct have had no business before them. A Sub-Committee was appointed to consider

the advisability of preparing a pamphlet of instructions to arbitrators for the guidance of the profession. They have held many meetings and the matter is still under consideration.

Professional Advertising and Etiquette.—The Committee have considered representations made by members upon these matters and have recommended the Council to take action according to the circumstances of each case.

Status of Architects in the East.—Members of the Institute practising in the Far East have drawn attention to the low status of the profession in that part of the world and have appealed to the Institute to help them to ameliorate the disadvantages under which they have to practise. The matter was considered by the Committee, and their views were communicated to the applicants as to what steps could be taken with the expressed hope that the action of the Indian Public Works Department with regard to practice in India would afford an illustration of what might be done to redress their legitimate grievances.

Supplies of Timber after the War.—This most important matter has come before the Practice Committee, who have held joint meetings with the Council and the Science Committee to consider the supply of timber from the Overseas Dominions and our Allies to meet the deficit after the war, and have interviewed responsible officials and representatives of interested parties. The matter is still under consideration, and the Committee have in view the preparation of pamphlets and particulars, and it is hoped that an exhibition of timbers will shortly be arranged from which valuable results are anticipated.

Law on Light and Air.—An amendment of a far-reaching character has been proposed by the President on this law, which has been referred to this Committee, who have now reported to the Council.

Vote of Thanks.—The Committee have placed on record their thanks to Mr. Max Clarke, late Chairman, and Mr. Matt. Garbutt, late Hon. Secretary, for the valuable services which they have rendered to the Committee during their many years of office, and regretting that the effluxion of time necessitated their vacating their respective offices.

Building Owner's Use of Drawings.—The Committee are considering cases involving the building owner's use after a lapse of time of his architect's plans for further buildings with a view to avoiding payment of further fees, and also the cases relating to ownership of drawings.

Conditions of Contract.—The Committee have been consulted as to the meaning of certain clauses in the Conditions of Contract, but no point of general interest has arisen.

Architects and Estate Agency.—Many queries have been raised as to the propriety of an architect engaging in estate agency work, and the matter has been considered by the Committee, who have reported to the Council.

Members' Queries.—The Committee have dealt with a considerable number of queries raised by members, mainly on the question of disputed fees, and they wish to draw the attention of applicants to the necessity of attending to the following points :—

(a) That concise but detailed statements should be submitted, accompanied by documents wherever possible.

(b) That the Committee observe the rule of not coming to a decision upon purely *ex parte* statements.

(c) That the Committee do not advise members on matters unless questions of principle are involved.

(d) The Committee point out that the great majority of questions on fees arise in cases where the Institute's Scale of Charges has not been adopted as a basis, and their experience appears to indicate that such questions would not have arisen had the Institute's Scale of Charges been so adopted.

Personal Matters.—Many personal matters have been considered, but are of such a nature as to render any publication undesirable.

The late Mr. Edward Greenop.—The Committee have to acknowledge their thanks to the Executors

of the late Vice-Chairman, Mr. Edward Greenop, who have forwarded a series of volumes of the *Professional Notes* of the Surveyors' Institution for the use of the Practice Standing Committee.

Other Business.—Questions as to established custom and practice in various matters have been raised by members of the general public, and the Committee sent suitable replies where they considered the matter of general interest, although as a rule they consider only queries raised by members of the Institute. Many questions arising from the abnormal conditions in connection with labour, supplies of materials and Government restrictions, have been dealt with by the Committee, who have taken steps to render their opinions authoritative by consultation with Government Departments.

REPORT OF THE LITERATURE STANDING COMMITTEE.

Since the issue of its last Report the Literature Standing Committee have held five meetings.

The following officers were elected to serve during the Session :—Mr. H. H. Statham, Chairman ; Mr. Arthur T. Bolton, Vice-Chairman ; Mr. Herbert G. Ibberson and Mr. H. H. Wigglesworth, Hon. Secretaries.

The Committee have to record with regret the resignation of Mr. C. Harrison Townsend, late Chairman of the Committee, owing to his departure from London for service in the R.N.V.R.

Mr. J. D. Crace [Hon. A.] has made further valuable presentations of drawings from his collection to the Library. These include drawings by the late J. G. Crace of colour decoration of buildings in Munich, among which may be mentioned a series of studies of decorative treatment of various apartments in the Königsbau, built from the designs of Leo von Klenze. Further drawings by the artist himself of Arabic architecture and colour decoration in Cairo and Damascus are of special interest as having formed the illustrations for a paper on this subject read before the Institute by Mr. Crace in 1870.

Mrs. Gerald C. Horsley has presented to the Library two drawings by her late husband, one being a pen-and-ink perspective of the choir of Gloucester Cathedral, and the other a pencil drawing of the interior of the cathedral of Siena.

From the collection of the late Dr. James Burgess [Hon. A.] Miss Burgess presented a number of drawings by the Hon. Sir Arthur Gordon (afterwards Lord Stanmore), comprising archaeological surveys in Egypt and India. The Egyptian drawings consist of a series of plans of Coptic monasteries and churches, while the Indian drawings form a valuable record of the important mosque and the bazaar buildings at Gulbarga, Haidarabad.

A collection of drawings by the late Reginald Barratt and the late Gerald C. Horsley executed in the office of R. Norman Shaw was offered to the Library, but the Committee, taking into consideration the fact that the Institute collection of Norman Shaw's work was already fully representative, decided to present the drawings to the architectural school of Sheffield University at the request of Mr. W. S. Purchon, the Lecturer on Architecture at the University.

Presentations of books have been received from Mrs. Keirle and by the bequest of the late C. F. Merriman [A.]. As copies of a number of the books in these two gifts were already in the Reference and Loan Collections the Committee have presented the duplicates to the Library of the Architectural Association.

The following is the Librarian's Report to the Committee :—

During the twelve months ending the 31st March of the present year 223 volumes and 37 pamphlets have been added to the Library, exclusive of periodicals, reports and transactions of Societies, and parts of works issued in serial form. The drawings presented numbered 139, and prints 34 sheets.

The number of works presented was 141 volumes and 35 pamphlets.

Works purchased numbered 82 volumes and 2 pamphlets, of which 17 were added to the Loan Library.

The attendance of readers in the Reference Library numbered 2,032.

The number of books issued on loan was 871.

The number of tickets issued for admission to the Library, other than to members of the Institute or to Students and Probationers, was 27.

The books issued through the post numbered 134.

Donations of books, pamphlets, or drawings have been received from Mrs. Gerald C. Horsley, Mr. Benj. Ingelow, Professor Patrick Geddes, Mr. A. E. Murray, Mrs. Charles, M. Louis van der Swaelmen, Miss Constance A. Baily, Mr. J. D. Crace, Sir John J. Burnet, Mr. Ambrose Poynter, The Yale University Press, Pittsburgh Architectural Club, M. Pierre Turpin, Mrs. E. Greenop, Mr. Fiske Kimball, Mr. J. Arnott Hamilton, Mr. R. Trayfoot, Mr. W. H. Elgar, Messrs. B. T. Batsford, Ltd., Mr. John Bilson, the High Commissioner, Commonwealth of Australia, Mrs. Keirle, the late C. F. Merriman, Mrs. Griffiths, Miss Burgess, the Commission of Conservation, Canada.

Among the books purchased or presented during the year may be mentioned:—Cook's *Twenty-five Great Houses of France*; Cunningham, Younger and Smith's *Measured Drawings of Georgian Architecture in the District of Columbia, 1750-1820*; King's *George Edmund Street*; Chippendale's *The Gentleman and Cabinet-maker's Director, &c.* (Reprint); Ackermann's *Designs for Architects, &c.*; Hunter's *Handbook of County Bibliography*; Porter's *Lombard Architecture*; van der Swaelmen's *17th Century Art Civique*; Mommsen's *I Commentarii dei Ludi Secolari Augustei e Severiani Scoperti in Roma, &c.*; Lewis's *Planning of the Modern City*; Geddes's *Town Planning in Balrampur, &c.*; Howard and Crossley's *English Church Woodwork*; Cox's *Bench Ends in English Churches*; Perrault-Dabot's *Archives de la Commission des Monuments Historiques, Catalogue des Relevés, Dessins et Aquarelles*; Byne and Stapley's *Spanish Architecture of the Sixteenth Century*; Ashbee's *Where the Great City Stands*; Cram's *The Substance of Gothic*; Jenkinson's *London Churches Before the Great Fire*; Evelyn's *Parallel of the Antient Architecture with the Modern, &c.*; Andrews' *Further Problems in the Theory and Design of Structures*; Gardner's *Paint Technology and Tests*; Morley's *The Theory of Structures*; Morris's *Lectures on Architecture*; Transcription of the Diary of Nicholas Stone, Junr., MS.

REPORT OF THE SCIENCE STANDING COMMITTEE.

Since the date of the previous Report ten meetings of the Committee have been held, with an average attendance of 10 members, exclusive of Sub-Committees. Mr. W. E. Vernon Crompton was elected Chairman, Mr. Horace Cheston Vice-Chairman, and Messrs. Allan O. Collard and Digby L. Solomon were re-elected joint Hon. Secretaries. Mr. John W. Simpson was invited to become a Visiting Member, as the By-laws do not provide for the co-option of members by a Standing Committee.

Last year the Committee were informed that the use of shell-discard steel was, at that time, permitted by the Ministry of Munitions for building purposes, without a permit. Further information having reached the Committee since, it was decided to prepare and publish the notes on "Controlled Building Materials" which appeared in the JOURNAL of March 1918, the restrictions having become increasingly stringent. The Committee hope to revise these notes from time to time to bring them into harmony with the current orders.

While the Committee think the time may not be ripe for the introduction of the metric system, they informed the Decimal Association that their suggestion for the Institute to appoint a representative to the Association should be addressed to the Council direct, which led to the election of Mr. Searles-Wood on the Executive Committee of the Decimal Association.

After discussion of a proposal to introduce additional scientific symbols, submitted by the Institution of Heating and Ventilating Engineers, the Committee advised the Institution to approach all the English scientific societies, including the Engineering Standards Committee, with a view to collaboration and to prevent overlapping.

A proposal to establish a Board of Inventions, with power to issue certificates of approval, was not regarded by the Committee as likely to serve a useful purpose under the conditions suggested, being more a matter for a Government department to undertake.

The joint Conference on Steel-framed Buildings having drawn up their Report, the Committee have recommended the Council to contribute one-third of the cost of printing it, such contribution not to exceed £10.

A full examination of the physical qualities of tiles is in abeyance, though a microscopical test of a few samples is now being conducted for the Committee.

The Committee's inquiries and visits with respect to the vibration of belfries have been suspended for the time being, though there is sufficient data in hand for a short paper on the subject.

The Committee are of opinion that the time has arrived for it to be brought into close touch with the universities, colleges, laboratories, and others responsible for the administration of research throughout the Empire, and has referred the matter to the Research Committee to formulate a scheme, which will be presented to the Council in due course.

The structural damage done to buildings by bombs and shells having been discussed by the Committee at several meetings, and interviews having taken place with the Headquarters' Staff of the Home Defence, the Secretaries of the Industrial and Scientific Research Commission and of the Fire Preventions Committee, it has been decided to invite members to send in confidential information of cases which have come under their personal observation, in the future interests of the profession and the public. A paragraph to that effect will appear in the JOURNAL, and it is hoped that members will collaborate in giving this information.

In November the Committee recommended the Council to present a petition to the Local Government Board or other competent authority to alter or vary the present Building Regulations, so as to permit approved substitutes to be used.

A proposal for the Committee to collaborate with the Tudor Walters Committee on Housing received favourable consideration, but has not yet matured.

The Committee having been asked by an Army officer to advise on the economical reduction of noise arising from wooden engine houses, certain recommendations were made, in accordance with the Notes which were published in the JOURNAL of February 1918.

The Committee having been consulted with regard to the proposed working of certain gypsum beds in Australia were able to assist the applicant to obtain information on the kind of furnaces and apparatus required, together with the names of scientific records on the subject generally, and the places where gypsum works can be seen.

Various new books on scientific subjects have been examined by the Committee, and some of them recommended for use in the Library.

REPORT OF THE TOWN PLANNING COMMITTEE.

Four meetings of the Town Planning Committee and six meetings of the Charing Cross Bridge Joint Committee have been held since the date of the last report. Sir Aston Webb, R.A., was re-elected Chairman, Professor Beresford Pite Vice-Chairman and Mr. W. R. Davidge Honorary Secretary.

The proposed Arterial Roads for Greater London recommended by the conferences of Local Authorities and Professional Societies, as mentioned in the last report, were referred by the Local Government Board to Sir George Gibb, Chairman of the Road Board, for further consideration and report. No public report on the subject has been issued, but the Seventh Annual Report of the Road Board contained a letter sent to the Government Reconstruction Committee, showing that on financial grounds the Road Board were not in sympathy with the proposals put forward by the Local Government Board Conferences, the opinion being expressed that road crust improvements were of more importance than proposals for new roads. On the recommendation of the Committee a letter has been addressed by the Council of the R.I.B.A. to the Reconstruction Committee and also to the President of the Local Government Board urging the importance of these new roads being carried out as early as possible after the war, as a necessary accompaniment to the housing and other development schemes which must in any case be undertaken.

The numerous press cuttings received as to the progress of town planning schemes all over the country have proved of great service in enabling the Institute, with the aid of its Allied Societies, to keep in close touch with the various municipal authorities. Representations have in each case been

made to the Local Authority with a view to the appointment of an architect to collaborate with the municipal officials in the preparation of the scheme.

In addition to the town planning schemes brought to the notice of the Allied Societies, several schemes in the Home District have been considered in detail by the Committee. In these cases a plan of the proposal has been secured and one or more members of the Committee have reported on the proposals in detail. The thanks of the Committee are particularly due to Colonel R. C. Hellard, R.E., in this connection.

The Committee are glad to note that the Glasgow Corporation have called into consultation with them Mr. John Watson [F.] and Mr. John Keppie [F.] with a view to a number of city improvement and housing schemes.

The Thames Side Housing and Development Committee in connection with the Garden Cities Association, under the chairmanship of Mr. Arthur Crow [F.], to which two representatives were appointed by the Committee, have completed their interim report dealing with the Thames Side Housing and dock development and their report will be issued shortly.

The subject of Housing after the War has been under consideration by the Local Government Board and a technical committee has been set up to deal with the question, on which our Chairman, Sir Aston Webb, has represented the Institute.

The Memoranda of the Town Planning Institute and of the National Housing and Town Planning Council on the subject of town planning and housing have been under consideration and it is hoped that some simplification of town planning procedure may be eventually obtained.

The Committee also note an interesting publication by the American Institute of Architects' Committee on Town Planning entitled *City Planning Progress*, 1917, which shows in attractive and well illustrated form what American architects have achieved in city planning.

Professor Beresford Pite brought before the Committee the need for the consideration of sites for National Memorials in London and other large cities. A number of sites and suggestions have been considered, and on the instruction of the Council the Committee is giving further consideration to this matter, in co-operation with the London Society.

The Charing Cross Bridge Bill came before the House of Lords' Committee on the 3rd July 1917, when, on the representations of the Institute and the London Society, several very important amendments were effected in the Bill. The House of Lords allowed the Bill to proceed upon the railway company giving an undertaking that no expenditure in relation to Charing Cross Station, as apart from the bridge, should be incurred without further parliamentary sanction being obtained ; further, that in the event of any public improvement involving the removal of the existing station and bridge being authorised within fifteen years the railway company should not be reimbursed for any expenditure they might incur on the strengthening of the bridge ; also that the railway company should not commence construction of the works above water until the expiration of three years from the passing of the Bill, unless the Board of Trade, in the public interest, should require the work to proceed earlier. (See JOURNAL R.I.B.A., July 1917, p. 223.) The opportunity thus obtained for further consideration by the authorities as to the possibilities of the construction of a fine new road bridge, urgently wanted at Charing Cross, should prove of the utmost value.

REPORT OF RESEARCH COMMITTEE FOR SESSION 1917-18.

This Committee, originally constituted as a Sub-Committee of the Science Committee, is now a direct Committee of the Council, and consists of eight members, two additional members in the persons of Messrs. Walter Cave and Matt. Garbutt having been appointed during the past year. A strengthening of the Committee by the addition of still further members is at present under consideration. The Chairman is Mr. Alan E. Munby, M.A. [F.], and the Hon. Secretary Mr. Digby L. Solomon, B.Sc. [A.].

The following are some of the subjects which have been dealt with by the Committee during the past twelve months :—

Corrosion of Brass and other Non-Ferrous Metals.—For some time it has been the opinion of the Committee that research work should be undertaken in connection with the corrosion of brass, gunmetal, and other alloys used in the building trade—with a view either to the discovery of some more durable protective covering than ordinary lacquer, or of an alteration in the composition of the constituents of brass or these alloys—in order to render the finished article less liable to the rapid corrosion which it suffers under ordinary atmospheric influences as at present manufactured, and further, in order to dispense with the vast amount of labour which is at present daily expended in polishing brass and similar articles.

As a result of considerable correspondence and many interviews with the Government Advisory Council on Scientific and Industrial Research and with the Institute of Metals, a joint Committee has now been formed at the instigation of the R.I.B.A. Research Committee to deal with this important subject, such Committee consisting of three representatives appointed by the Royal Institute of British Architects, three by the Institute of Metals, and three by the Trade. The R.I.B.A. is represented by the following members of the Research Committee :—Messrs. Alan E. Munby, W. E. Vernon Crompton, and Digby L. Solomon.

Glass for Pavement Lights.—As at present manufactured practically all the various types of lenses and prisms used for Pavement Lights and Floor Lights are subject to rapid deterioration by the weather and by traffic and hard wear, resulting in flaking and shelling of the surface, with consequent great loss of light to those portions of the building which they cover. Investigations have been undertaken in this matter at the instigation of the Research Committee in conjunction with the Advisory Council, and a formula has been devised by Professor Jackson, the Government expert on Glass, which has resulted in the manufacture of a hard, tough, resistant yet transparent glass by Messrs. Moncrieff, of Perth. Sample lenses have since been received by the Research Committee from Messrs. Moncrieff, of a size to fit the standard Pavement Light Frame in use, and having the surfaces of various finishes. These samples are being inserted in one of the busy streets in the City, and records will be taken from time to time as to the wearing qualities of these samples. Should this glass prove satisfactory through the test of time, it is intended, with the consent of the Advisory Council, to advise the manufacture of this type of glass on a large scale. The improvements which result will have their effect on the enhanced financial value and hygienic condition of basements.

Research into Timber.—It has been brought to the notice of the Committee that the Advisory Council on Scientific and Industrial Research intends to carry out a scheme of research into the whole subject of timber, not only with a view to investigating such subjects as the decay of timber from dry-rot and other causes, but also with a view to the more extended use of various by-products of timber and timber-waste; to improvements in the method of rendering various varieties non-inflammable; to methods of enhancing their staining and polishing qualities; and so forth. In May 1916 a considered memorandum was sent to the Advisory Council on the one subject of Dry-Rot (a copy of which memorandum has since been printed in the Institute JOURNAL) and recently a further memorandum has been sent to this Body on the whole subject of Research into Timber, a copy of which second memorandum it is hoped to reprint shortly in the JOURNAL.

Indian and Colonial Timbers.—As a result of representations made to the Imperial Institute a joint Committee was constituted in 1916, under the Chairmanship of the Director of that Institute, to consider the subject of Indian and Colonial Timbers in all its bearings. During the year under review this joint Committee has met frequently, and has been considerably enlarged. It now consists of the following members :—three representatives from the R.I.B.A. (Messrs. Searles-Wood, W. E. Vernon Crompton, and Digby L. Solomon), two members from the Institute of Builders, two from the Timber Trade, two from the Furniture Trade, one representative of the Carpenters' Company, two

representatives from the Imperial Institute (one of whom is the Director of the Imperial Institute) and Sir Keith Price. It is a pleasure to record that Mr. Searles-Wood has recently been appointed Chairman of this Committee. The Committee is now recognised as one of the technical Committees of the Imperial Institute, and has already issued an interim report on the subject of Indian Timbers, which will be followed later on by reports on timbers indigenous to the other Dominions and the Colonies.

Imperial Institute Committee on Ornamental Building Stones.—Following on similar lines to the above Committee a further joint Committee has recently been formed at the Imperial Institute at the suggestion of the R.I.B.A. Research Committee, to deal with the subject of Indian and Colonial Ornamental Building Stones, and two representatives from the R.I.B.A. have been appointed to such Committee in the persons of Messrs. Walter Tapper and Andrew N. Prentice.

Among other subjects which have been under the consideration of the Committee during the preceding twelve months are the corrosion of steel and iron embedded in concrete; the protective power of various paints in reference to the corrosion and preservation of steel and other metals; and the scientific training of architectural students. And at the present time a detailed memorandum is under discussion on the subject of Scientific Research in connection with the Building Industry as a whole. It is hoped that the deliberations and investigations which are being carried out at the suggestion of the Research Committee will lead to results of national value, which will be felt by the profession and the trade at large; and it is intended to publish from time to time the results of such investigations.

REPORT OF THE ARCHITECTS' WAR COMMITTEE.

At the beginning of the current year the War Committee had the misfortune to lose the services of Mr. Alan Munby as Honorary Secretary. He had spared neither time nor trouble in the business of the Committee, and his work had been of the most valuable kind. He has been succeeded in the position by Mr. Arthur Keen.

Some of the Sub-Committees having grown to an unwieldy size, the constitution of them has been reviewed. Any displaced members who were not already members of the main Committee have been placed upon it. The Executive Committee now consists of sixteen ordinary members representing various Sub-Committees and including the Presidents of two Allied Societies.

Among many matters brought before it the question of Housing of the Working Classes was dealt with at some length by the Committee, but when the Institute Committee on Housing was set up it was transferred to that Committee and one of the members of the Executive Committee was co-opted to serve upon it.

Another matter that has been considered is the scheduling of places of shelter in case of Air Raids, and communications upon the subject have been made to the Military and Police Authorities.

A proposal for setting up a Board to assist architects seeking exemption from military service by hearing their cases and appearing before the Tribunals was considered but not adopted. Arrangements were, however, made for dealing with cases where particular cause for action was shown, and in one instance the arrangement was carried out with effectual results.

The work of the Selection Committee is much reduced in amount. Nearly all the men of military age in the profession are now in the Services or otherwise occupied under the Government, and the efforts of this Committee are mainly directed to helping men to secure commissions and transfers in the Army or to finding work of national importance for those who have been discharged or placed in a low category. Any information that can be given as to suitable appointments for such men will be most valuable to the Committee. Positions for a great many men have been found, but there are constantly fresh applications for help in this direction to be dealt with.

The Reorganisation Committee is dealing with many proposals for reinstating men in the profession after the war, for securing employment or educational facilities for the younger men, and generally for helping all to make up the time lost by them while serving their country. The Committee is also endeavouring to secure from the Government and Public Authorities appointments or commissions for architects whose practice has fallen away while they were serving with the Colours. This Committee includes the Presidents of the Allied Societies among its members* and it deals with matters connected with demobilisation and after-war conditions.

A Sub-Committee for watching and safeguarding the interests of architectural assistants has been formed and is intended to become a permanent Committee.

The Architectural Association has formed an Information and Employment Bureau for the benefit of men coming out of the Army.

There has been a considerable falling-off in the number of applications to the Employment Sub-Committee, and the actual number of men lately reported as being engaged on independent Civic Surveys and other subsidised work under this Committee in London and the provinces was only twenty-two as compared with thirty-seven in the early part of 1917, and most of these were men of advanced age.

Special assistance has been given to applicants in a few cases of particular need.

REPORT OF THE HONORARY AUDITORS FOR 1917.

We have carefully examined the books and checked the various items therein with the accounts and vouchers for the year 1917. We have also examined the various share certificates held by the Institute and the list of share certificates deposited at the bank, all of which were found to be in order and to agree with the balance sheet prepared by the accountants.

We note with great satisfaction the savings that have been effected in every branch of expenditure, the result of which has been that the bank overdraft which on 31st December, 1914, stood at £2,707 has been still further reduced and now stands at £1,639. Moreover, the estimated surplus for the year was £165, whereas the actual surplus works out at £241, notwithstanding the fact that a certain sum has been used for war allowances which was not allowed for in the estimate of expenditure. A considerable decrease of income arises from the fact that the Council are still remitting the subscriptions of Members and Licentiates who are serving with H.M. Forces. A further reduction is due to the decreased number of candidates for examination. Income arising from the various Trust Funds, to the amount of £420 5s. 6d., has been invested in War securities. These investments will materially augment the value of prizes in the future.

We observe that the value of the premises still stands at the old figure, and presume it is intended to have a proper valuation made in the near future.

We find that the revenue has been judiciously used and the work carried on in an economical manner and in the best interests of the Institute, and we congratulate the staff on the way they have performed their duties.

HENRY A. SAUL [F.] }
H. S. EAST [A.] } Hon. Auditors.

FINANCES.

The accounts of Ordinary and Trust Funds for 1917, prepared by Messrs. Saffery, Sons & Co., Chartered Accountants, and audited by Messrs. Henry A. Saul [F.] and H. S. East [A.], Hon. Auditors, here follows:—

Income and Expenditure Account of Ordinary Funds for the Year ended 31st December, 1917.

Dr.	Exclusive of Entrance Fees and Subscriptions in advance.	Ct.
To ORDINARY EXPENDITURE—	EXPENDITURE.	INCOME.
Rent	£ s. d. £ s. d.	By ORDINARY INCOME—
Rates and Taxes	847 1 5	Subscriptions.
Interest on Mortgage	160 0 0	683 Fellows at £4 4s.
Gas and Electric Lighting	1076 6 5	92 Ditto Arrears
Fuel	79 7 3	17 Ditto on Account
Salaries*	104 4 3	931 Associates at £2 2s.
General Printing, Stationery, Stamps, and Petty Expenses	2722 6 2	39 Hon. Associates at £2 2s.
Carriage	304 13 4	1238 Licentiates at £1 1s.
Postage	6 9 0	Ditto on Account
Illustrations	284 17 7	Ditto Arrears
Postage and Carriage	19 15 6	Reinstated Members
Bridge Bill)	64 3 9	
Board of Scientific Societies	76 9 8	
Grant to British School at Rome	52 8 6	
Library	100 0 0	JOURNAL and KALENDAR—
JOURNAL—	100 0 0	Advertisements
Reporting	33 5 8	Sales of Journal and other Publications..
Printing and Binding	611 11 4	
Illustrations	23 5 7	Examination Fees—
Postage and Carriage	309 10 8	Statutory
KALENDAR (Supplement)	977 13 3	Preliminary
Contributions	75 5 6	Intermediate
War Comm.	399 9 0	Special and Final
MISCELLANEOUS EXPENSES—	255 15 9	Licentiates
Legal and Accountants	40 6 2	
Presidents of Allied Societies	9 6 8	Use of Rooms—
Treasurer	35 0 0	R.I.B.A. Tenants
War	150 0 0	Grissell Legacy—
	33 12 10	Interest on War Loan
Reserve for fine payable at renewal of Lease	268 5 8	
Interest on Overdraft	7 0 0	
Balance of Income over Expenditure for year carried to and included in Balance Sheet Surplus	42 3 1	
	241 6 8	
	£7376 4 11	£7376 4 11

* Including the sum of £710 16s. paid to members of the staff on service as supplementary to their military pay.

† By-law 82 provides that "The Royal Institute shall, in each year, contribute to any Non-Metropolitan Allied Society not more than one-fourth of the annual subscription paid to the Royal Institute by each member thereof who is also a member of such Society, in respect of and for his subscription thereto; but in no event shall such contribution apply in the case of any one member to more than one Allied Society."

SAFFERY, SONS & CO.,
Chartered Accountants.

Examined with the vouchers and found to be correct. 9th April 1918. { HENRY A. SAUL [F.] } Hon. Auditors.
(H. S. EAST [A.])

Dr.	Balance Sheet of Ordinary Funds, 31st December, 1917.	Ct.
To Sundry Creditors—	LIABILITIES.	ASSETS.
Sundry	£ s. d. £ s. d.	By Premises
Mortgage Interest	693 17 1	(Subject to a Mortgage of £4000 at 4 per cent.)
Rent	40 0 0	Investment (Grissell Legacy) £526 8s. 5 per cent. War Loan
Reserve for fine payable on renewal of Lease	17 10 0	Debtors, Rent, Advertisements, &c.
Examination Fees anticipatory of election	751 7 1	Subscriptions in Arrear for 1917 and previously
Subscriptions received in advance	70 0 0	
Bank Overdraft	66 3 0	
Lieutenant Francis Grissell Legacy Fund	98 0 11	
Surplus of Assets over Liabilities (subject to Valuation of Premises and realisation of Debtors and Subscriptions in Arrear)	1639 15 3	
	500 0 0	
	86269 2 7	
	£39889 17 10	£39889 17 10

NOTE:

A Fine of £7 per annum is payable every 14 years in respect of the premises under a Lease from the Corporation of the City of London. Notice of renewal must be given at Michaelmas, 1921, and the fine of £98 paid.

SAFFERY, SONS & CO.,
Chartered Accountants.

Examined with the vouchers and found to be correct. 9th April 1918. { HENRY A. SAUL [F.] } Hon. Auditors.
(H. S. EAST [A.])

Revenue Accounts of Trust Funds for the Year ended 31st December 1917.

Dr.	£ s. d.	Cr. £ s. d.
ASHFELT PRIZE FUND :—		
To purchase of £20 5 per Cent. War Loan	19 0 0	9 6 10
To Balance carried forward.....	<u>2 12 5</u>	
	<u>21 12 5</u>	<u>21 12 5</u>
ANDERSON AND WEBB FUND :—		
To purchase of £26 5 per Cent. War Loan	23 15 0	14 9 10
To purchase of £10 5 per Cent. National War Bonds	10 0 0	2 6 6
To Balance carried forward.....	<u>3 11 2</u>	
	<u>37 6 2</u>	<u>37 6 2</u>
ARTHUR CATES LEGACY :—		
To purchase of £45 5 per Cent. War Loan	42 15 0	26 10 2
To purchase of £20 5 per Cent. National War Bonds	20 0 0	34 16 0
To Balance carried forward.....	<u>4 10 10</u>	
	<u>67 5 10</u>	<u>67 5 10</u>
DONALDSON TESTIMONIAL FUND :—		
To Balance carried forward.....	5 15 4	4 13 10
	<u>5 15 4</u>	<u>5 15 4</u>
DONATION FUND :—		
To purchase of £40 5 per Cent. War Loan	38 0 0	39 18 5
To Balance carried forward.....	<u>5 13 9</u>	
	<u>43 13 9</u>	<u>43 13 9</u>
GODWIN BURSARY :—		
To purchase of £25 5 per Cent. War Loan	23 15 0	2 11 9
To purchase of £10 5 per Cent. National War Bonds	10 0 0	30 18 0
To Balance carried forward.....	<u>1 17 3</u>	
	<u>35 12 3</u>	<u>35 12 3</u>
GRISSELL LEGACY :—		
To purchase of £20 5 per Cent. War Loan	19 0 0	15 15 1
To Balance carried forward.....	<u>9 6 11</u>	
	<u>28 6 11</u>	<u>28 6 11</u>
OWEN JONES STUDENTSHIP :—		
To purchase of £107 9s. 6d. 5 per Cent. War Loan	102 5 0	11 6 4
To purchase of £10 5 per Cent. National War Bonds	10 0 0	39 18 0
To Balance carried forward.....	<u>3 3 10</u>	
	<u>115 8 10</u>	<u>46 15 3</u>
PUGIN MEMORIAL FUND :—		
To purchase of £47 17s. 5 per Cent. War Loan	45 5 0	13 9 2
To purchase of £10 5 per Cent. National War Bonds	10 0 0	3 10 1
To Balance carried forward.....	<u>2 1 3</u>	
	<u>57 6 3</u>	<u>0 10 0</u>
SAXON SWELL REQUEST :—		
To purchase of £29 5 per Cent. War Loan	19 0 0	1 6 9
To purchase of £10 5 per Cent. National War Bonds	20 0 0	57 6 3
To Balance carried forward.....	<u>7 4 0</u>	
	<u>46 4 0</u>	<u>21 17 0</u>
TITE LEGACY FUND :—		
To purchase of £35 5 per Cent. War Loan	33 5 0	20 7 7
To purchase of £10 5 per Cent. National War Bonds	10 0 0	18 6 6
To Balance carried forward.....	<u>2 11 11</u>	
	<u>45 16 11</u>	<u>6 18 0</u>
WIMPERIS BEQUEST :—		
To purchase of £35 5 per Cent. War Loan	33 5 0	0 11 11
To purchase of £10 5 per Cent. National War Bonds	10 0 0	1 6 0
To Balance carried forward.....	<u>6 18 10</u>	
	<u>£60 3 10</u>	<u>46 4 0</u>
SAFFERY, SONS & CO., Chartered Accountants.		
Examined with the vouchers and found to be correct. 24 April 1918.		
	{ HENRY A. SAUL [F.] } (H. S. EAST [A.])	Hon. Auditors.

Balance Sheet of Trust Funds, 31st December 1917.

Dr.	£ s. d.	£ s. d.	Cr.	£ s. d.	£ s. d.
To DUNDEE FUND:			By Government and other Securities, being total of Trust Funds invested at this date, at valuation. Also of War Savings Certificates at cost		9813 11 11
To New South Wales Debts (1922): Value £76 8s. 11d. 4 <i>½</i> per Cent. War Loan.....	280 13 0			55 7 6	
£20 5 per Cent. War Loan.....	76 1 3			75 0 0	130 7 6
Balance at credit of Revenue Account.....	18 15 0				
	2 12 5	378 2 2			
To ANDERSON AND WEBB FUND (Board of Architectural Education):			By Cash at Bank:—		
Capital—£691 18s. 7d. New South Wales 1 per Cent. Debentures (1922): Value at 31st December, 1917.....	547 6 6				
£58 6s. New South Wales 4 per Cent. Inter-City Stock (1942): Value at 31st December, 1917.....	46 1 2				
£10 6s. 1 <i>½</i> per Cent. War Loan.....	56 0 9				
£25 5 per Cent. War Loan.....	23 8 9				
£10 5 per Cent. National War Bonds.....	10 0 0				
Balance at credit of Revenue Account.....	3 11 2	686 8 4			
To ARTHUR CATES FUND:					
Capital—£1130 N. 1 <i>½</i> per Cent. Preference Stock: Value at 31st December, 1917.....	858 8 0				
£187 18s. 7d. 4 <i>½</i> per Cent. War Loan.....	137 4 9				
£45 5 per Cent. War Bonds.....	42 3 9				
£10 5 per Cent. National War Bonds.....	20 0 0				
Balance at credit of Revenue Account.....	4 10 10	1062 7 4			
To DEMALDON TRUSTFUND FUND:					
Capital—£72 L. & N.W. Railway 4 per Cent. Consolidated Preference Stock: Value at 31st December, 1917.....	53 5 8				
£12 4s. 7d. 4 <i>½</i> per Cent. War Loan.....	12 3 4				
Balance at credit of Revenue Account.....	5 15 4	71 4 4			
To DONCASTER & SOUTH YORKSHIRE RAILWAY FUND:					
£40 5 per Cent. War Loan.....	76 1 3				
£40 War Savings Certificates.....	37 10 0				
Balance at credit of Revenue Account.....	310 0 0	429 5 0			
To GODWIN BURSARY FUND:					
Capital—£1030 Caledonian Railway 4 per Cent. Debenture Stock: Value at 31st December, 1917.....	772 10 0				
£44 6s. 4 <i>½</i> per Cent. War Loan.....	44 1 7				
£25 5 per Cent. War Loan.....	23 8 9				
50 War Savings Certificates.....	38 16 0				
£10 5 per Cent. National War Bonds.....	10 0 0				
Balance at credit of Revenue Account.....	1 17 3	890 12 7			
To GREAT WESTERN RAILWAY FUND:					
Capital—£1000 Great Western Railway at 31st December, 1917.....	295 9 10				
£25 7s. 8d. 4 <i>½</i> per Cent. War Loan.....	20 5 7				
£20 5 per Cent. War Loan.....	18 15 0				
Balance at credit of Revenue Account.....	9 6 11	343 17 4			
To GWR MEMORIAL FUND:					
Capital—£1070 L. & N.W. Railway 4 per Cent. Consolidated Preference Stock: Value at 31st December, 1917.....	1074 12 10				
£1247 G.W.R. Railway 5 per Cent. Consolidated Guaranteed Stock: Value at 31st December, 1917.....	1173 8 8				
£308 18s. 6d. 4 <i>½</i> per Cent. War Loan.....	398 16 9				
£107 0s. 6d. 5 per Cent. War Loan.....	100 15 2				
50 War Savings Certificates.....	38 15 0				
£10 5 per Cent. National War Bonds.....	10 0 0				
Balance at credit of Revenue Account.....	3 8 10	2796 7 3			
To PUGIN MEMORIAL FUND:					
Capital—£1070 L. & N.W. Railway 4 per Cent. Consolidated Preference Stock: Value at 31st December, 1917.....	791 16 0				
£15 6s. 4 <i>½</i> per Cent. War Loan.....	15 8 2				
£47 10s. 5 per Cent. War Loan.....	44 16 3				
£10 5 per Cent. National War Bonds.....	10 0 0				
Balance at credit of Revenue Account.....	2 1 3	864 1 8			
To SAXON SNAPE BEQUEST:					
Capital—£308 4s. New Zealand 9 <i>½</i> per Cent. Stock: Value at 31st December, 1917.....	502 14 1				
£204 10s. 6d. 4 <i>½</i> per Cent. War Loan.....	203 9 11				
£20 5 per Cent. War Loan.....	18 15 0				
£29 5 per Cent. National War Bonds.....	20 0 0				
Balance at credit of Revenue Account.....	7 4 0	752 3 0			
To THE LEGACY FUND:					
Capital—£1150 2 <i>½</i> per Cent. Consols: Value at 31st December, 1917.....	626 15 0				
£51 12s. 6d. 4 <i>½</i> per Cent. War Loan.....	51 7 4				
£35 5 per Cent. War Loan.....	32 16 8				
£10 5 per Cent. National War Bonds.....	10 0 0				
Balance at credit of Revenue Account.....	2 11 11	723 10 6			
To WIMPERIS BEQUEST:					
Capital—£1024 18s. 8d. Metropolitan Water Board 3 per Cent. "B" Stock: Value at 31st December, 1917.....	620 1 8				
£202 3s. 5d. 4 <i>½</i> per Cent. War Loan.....	201 8 2				
£35 5 per Cent. War Loan.....	32 16 3				
£10 5 per Cent. National War Bonds.....	10 0 0				
Balance at credit of Revenue Account.....	6 18 10	870 19 11			
To HENRY JARVIS STUDENTSHIP:					
Balance in hand		75 0 0			
		£9943 19 5			

SAFFERY, SONS & CO.,
Chartered Accountants.

Examined with the vouchers and found to be correct. 9th April 1918. {HENRY A. SAUL [F.] H. S. EAST [A.]} Hon. Auditors.

The Council submit a rough Estimate of Income and Expenditure of Ordinary Funds for the year ending 31st December 1918, exclusive of Entrance Fees:—

ORDINARY EXPENDITURE.		£	s.	d.	ORDINARY INCOME.		£	s.	d.
Rent, Rates and Taxes, &c.	1100	0	0	0	Subscriptions and Arrears	6500	0	0	0
Gas and Electric Lighting	85	0	0	0	Sale of Publications	100	0	0	0
Fuel	100	0	0	0	Advertisements	200	0	0	0
Salaries	2775	0	0	0	Examination Fees	300	0	0	0
General Printing, Stationery, Stamps, and Petty Expenses	300	0	0	0	Use of Rooms	80	0	0	0
General Meetings and Exhibitions	15	0	0	0	Dividend on Grissell Legacy	20	0	0	0
Hiring of Buildings and Wagons	295	0	0	0					
Advertisements	20	0	0	0					
Examination Expenses	65	0	0	0					
General Repairs	100	0	0	0					
Fire and Aircraft Insurance	70	0	0	0					
Grants	300	0	0	0					
Library	75	0	0	0					
The JOURNAL	1050	0	0	0					
The KALENDAR SUPPLEMENT	75	0	0	0					
Contributions to Allied Societies	400	0	0	0					
Presidents of Allied Societies	10	0	0	0					
Legal	10	0	0	0					
Accountants	30	0	0	0					
Miscellaneous	135	0	0	0					
Interest on Overdraft	40	0	0	0					
Special Items:—									
War Committee and Civic Survey	150	0	0	0					
	£7200	0	0	0					
	£7200	0	0	0					

Privy Council's Sanction to Suspension of Bye-Laws.

AT THE COUNCIL CHAMBER, WHITEHALL,
The 12th day of April, 1918.

By the Lords of His Majesty's Most Honourable
Privy Council.

WHEREAS by the Charter of the Royal Institute of British Architects, dated the 28th March, 1887, it is provided that the Royal Institute may from time to time by Resolution of a General Meeting, confirmed at a subsequent General Meeting, which shall be held not less than 7 and not more than 28 days after the former Meeting, make and adopt such Bye-laws as may be deemed expedient, and may in the same manner vary, suspend, and rescind any Bye-laws: Provided always that no such Bye-laws shall be of any force or validity whatever unless and until they have been approved by the Lords of His Majesty's Most Honourable Privy Council:

AND WHEREAS the Royal Institute did, by Resolution of a General Meeting held on the 4th March, 1918, confirmed at a General Meeting held on the 25th March, 1918, suspend Bye-laws Nos. 27 to 35 (inclusive), 46, and 50 to 54 (inclusive), so far as the said Bye-laws govern the Annual Election of the Council, the Standing Committees, and the Honorary Auditors, so that the Council, the Standing Committees, and Honorary Auditors, elected in June, 1917, should remain in office till the 30th June, 1919, provided always that the Allied Societies mentioned in the said Bye-laws and the Architectural Association should be represented on the Council by their Presidents in accordance with the said Bye-laws:

AND WHEREAS the Royal Institute has submitted the said Resolution to the Lords of the Council for approval:

NOW, THEREFORE, Their Lordships, having taken the said Resolution into consideration, are hereby pleased to approve the same.

ALMERIC FITZROY.

War Restrictions on Building.

The following letter has been addressed from the Institute to the Prime Minister:—

April 3rd, 1918.

SIR,—I have the honour to inform you that the subjoined resolution,* which I am directed to submit for the consideration of His Majesty's Government, was passed by a General Meeting of the Royal Institute of British Architects on the 7th January last and has received the approval of the Allied Societies of the Royal Institute throughout the United Kingdom, and of the Architectural Association, the Institute of Scottish Architects, The Surveyors' Institution, the London Master Builders' Association, the Quantity Surveyors' Association, the District Surveyors' Association, and the British Fire Prevention Committee.

In view of the serious importance of the question to all connected with building, I am directed to express the hope that the Reconstruction policy of His Majesty's Government may support the views expressed by the resolution of the Royal Institute.—I have the honour to be, Sir, Your obedient servant,

G. NORTHOVER,
For the Secretary.

*“That in view of the important interests involved, this Institute should, in conjunction with other bodies, take steps to represent to the Government the serious objections to the continuance after the declaration of peace of the present War restrictions on building.”

Formal acknowledgment of the letter has been received from Downing Street.

Structural Damage caused by Bombs from Air-Craft.

The Science Standing Committee, having had under consideration in the interests of the public and of the profession the structural damage done to buildings by bombs dropped from aircraft and shells, are collecting evidence on the subject with a view to codifying the information thus obtained for the use of architects. Members of the Institute in London and the Pro-

vinces are therefore invited to send detailed information of cases that have come under their personal observation to the Hon. Secretary of the Science Standing Committee, 9 Conduit Street, W. Such information will be treated as confidential as it cannot be published by individual members or by the Institute without the knowledge and consent of the Home Defence and Home Office Authorities.

The Institute and Allied Societies at Birmingham.

In the January issue of the JOURNAL a brief notice appeared of the meeting of the Joint Committee of representatives of the R.I.B.A. and of the Allied Societies held at Manchester on 12th December last. This was the Committee's second meeting, the first having been held in London last October. The third took place at Birmingham on the 20th March.

As with its predecessors, the Birmingham gathering was very representative, the R.I.B.A. being represented by the President, Mr. Lanchester and Mr. Searles-Wood, and the Allied Societies by the following, mostly Presidents : Mr. W. A. Harvey (Birmingham), Mr. John B. Gass (Manchester), Mr. E. Percy Hinde (Liverpool), Mr. George T. Brown (Northern, Newcastle), Sir Frank W. Wills (Bristol), Mr. Adam F. Watson (Sheffield), Mr. S. Perkins Pick (Leicester), Mr. J. Cook Rees (South Wales), Mr. James B. Dunn (Edinburgh), Mr. L. Kitchen (York), Mr. Lewis F. Tonar (Exeter); Mr. Isaac Taylor, Hon. Secretary of Allied Societies, Mr. Alfred Hale, Hon. Secretary Birmingham Association, Mr. G. Northover, for Secretary R.I.B.A. The meeting, which lasted well over three hours, was held amid the surroundings of the Winter Exhibition of the Royal Society of Artists at their Gallery in New Street. Among matters discussed were the Revised Scale of Charges and a Scale for Housing Schemes; some suggested amendments in the Council resolutions respecting Professional Conduct (KALENDAR, page 70); the Revised Conditions of Contract; the desirability of a model Agreement between architects and building owners; the Revised R.I.B.A. Charter and the question of Registration; Government control of Building and Building Materials, &c. The outcome of the Conference will appear in the Committee's report to the Council, which will shortly be published. The social side of the meeting was practically a repetition of the Committee's enjoyable experiences at Manchester. The visitors were the recipients of the very kind and generous hospitality of the Birmingham Association at the Queen's Hotel, where they were put up for the visit. In the evening the Association gave a dinner in their honour, Mr. W. A. Harvey presiding, supported by several members of the Association, among them Mr. John Cotton, the oldest surviving Pugin Student (1869) and the only architect Hon. Associate R.I.B.A., to which class he transferred on giving up practice a few years ago. The day of the Dinner happened to be a meatless day, but the cook at the Queen's was equal to the occasion

and left nothing to be desired. After-dinner speeches were contributed by Mr. Harvey, Mr. Hare, Mr. Searles-Wood, Mr. Lanchester, Sir Frank Wills, Mr. Cook Rees, Mr. Crouch (of Messrs. Crouch, Butler & Savage), and others. Not the least valuable and agreeable part of the visit was the after-dinner informal mingling together of hosts and guests in the smoking-room, affording as it did an opportunity for an interchange of views on questions upon which, though they are held in abeyance during the War, nevertheless call for immediate consideration if action is to be taken quickly when peace is restored.

These provincial meetings have been interesting episodes in the history of the Institute, and will remain pleasant memories to all who took part in them. There is no question but that the use and influence of the Institute are greatly furthered by such gatherings. They help, too, to create a bond of brotherhood which will ultimately bring about that unity which is so greatly needed in the highest interests both of architecture and of architects.

Suggestions for the Treatment of War Memorials.

Sir Edward J. Poynter, P.R.A., Sir Aston Webb, R.A., Sir Hamo Thornycroft, R.A., Sir Thos. Brock, R.A., Mr. Frank Dicksee, R.A., Mr. Reginald Blomfield, R.A., and Mr. Charles Sims, R.A., appointed by the Royal Academy to consider War Memorials, offer the following suggestions :—

1. Designs should be obtained either by calling in a competent artist, or by competition; and in the event of a competition being held, whether open or limited, a professional artist should be employed as assessor, who should be consulted as to the site and the conditions of the competition.

2. The site of the memorial, especially if in the open, is of vital importance. Any odd place will not do, and advice should be taken as to the suitability of the site before designs are obtained. In large towns, for instance, a memorial should not be so placed as to obstruct traffic; on the other hand, it should occupy a position sufficiently conspicuous to be worthy of its object; and the value or disadvantage of existing buildings as a background should be considered in deciding its position.

3. Where the memorial is to take the form of sculpture or architecture, the question of material should be determined (*a*) by the amount of money available—*e.g.*, for bronze, marble, stone, or wood; (*b*) by local considerations where these exist. If, for example, there is a suitable and durable local stone this should be used in preference to stone imported from a distance; and if such stone is used, due account must be taken of its qualities in the design.

4. In smaller towns or villages the setting of the memorial, the approaches to it, and its immediate surroundings should be carefully considered, and the cost of laying out the site, when necessary, should be included in the scheme. The effect of a memorial is often entirely destroyed by the want of a careful laying out of the site.

5. Where memorials are proposed for the interior of churches or public buildings, whether in sculpture, architecture, stained glass, mural paintings, votive pictures, tapestry Rolls of Honour, or wall tablets, careful regard should be paid to the scale and character of the architecture of the building and to any adjacent monument.

6. The lettering of all inscriptions should be carefully studied, and should be legible. A bold Roman type, or the Italian lettering of the 16th century based on it, is the type most suitable.

7. In all memorials simplicity, scale, and proportion should be aimed at rather than profusion of detail or excessive costliness of material. It is the imaginative and intellectual quality of the work that gives it its final value.

The Committee would be willing to give further advice in particular cases if required to do so. Inquiries should be addressed to the Secretary, Royal Institute of British Architects.

Gas Factories in the Upper Reaches of the Thames.

On the motion for the second reading of the Brentford Gas Bill in the House of Commons on the 20th March Mr. Burns did good service in calling attention to an attempt to smuggle through in a private Bill, brought in purely for financial reasons to meet war conditions, a proposal for the acquisition by the gas company of a site on the Thames at Chiswick on which to erect buildings for gasworks. Early in the war an endeavour had been made by the company to get a Bill through Parliament with the same object, but it was thrown out by the Lords. Mr. Burns said that the site, 185 acres in extent—*i.e.*, twenty times the area of the Houses of Parliament, terrace included—with an extensive river front, was proposed to be used for gas factories. If the scheme went through, he said, it would destroy for all time the amenities and appearance of this charming district. The same company's gasworks at Kew Bridge showed what these hideous erections had done for that neighbourhood right opposite Kew Gardens. London had twenty-two gas factories, twelve of them on the Thames, and most of them in the wrong places. The utilisation of a picturesque area in the upper reaches of the Thames for such purposes should never have been permitted. Mr. Burns pointed out that the proper place ideally and theoretically for these erections was east of London Bridge, not west of Putney Bridge. They would be much more conveniently placed there, for coal would be cheaper and bigger vessels could come up without the intervention of the bridges and without obstructing the traffic. By his unceasing vigilance in these matters Mr. Burns has earned the gratitude of all who are concerned for the general amenity and well-being of London and its environs.

Mrs. Waterhouse.

The death is announced, at Yattendon Court, Berks, at the age of eighty-three, of Mrs. Elizabeth Waterhouse, widow of Alfred Waterhouse, R.A., President R.I.B.A. (1888-91), Royal Gold Medallist (1878). *The Times* of the 6th inst. in its obituary notice says: "Mrs. Waterhouse came of a distinguished family of Friends, her father being John Hodgkin, and the late Thomas Hodgkin, the historian of 'Italy and Her Invaders,' being her brother. Widely and wisely read, she had marked literary gifts, which she put to good use both as an anthologist of a grave and philosophic kind and as a writer in an attractive homiletic vein. She also wrote occasional verse, and it is not here out of place to record that some dignified lines, entitled: 'In Mesopotamia,' and signed by the initials 'E. W.', which appeared in these columns in February, 1916, were written by her. She was married to Mr. Waterhouse in 1860, and after his death in 1905 she continued to live in the house which he had built at Yattendon, where for her many habitual acts of kindness she will

be much mourned. Her eldest son is Mr. Paul Waterhouse, his father's partner and successor, and her eldest daughter is the wife of Mr. Robert Bridges, the Poet Laureate."

War Risks: Reinstatement of Buildings: Fees.

The following Scale of Fees has been laid down by the War Risks Insurance Office:—

(a) In the case of structural damage necessitating the preparation of plans, 5 per cent. When the sum exceeds £500 and the nature of the work requires quantities to be taken out a further allowance of 2½ per cent.

(b) In the case of other damage to buildings an allowance in respect of the services of an architect or surveyor, 2½ per cent.

MINUTES.

At a fully constituted Special General Meeting of the Royal Institute held Monday, 25th March 1918, at 5 p.m., Mr. Henry T. Hare, President, in the Chair, the Minutes of the Meeting held 4th March 1918, having been printed in the JOURNAL, were taken as read and signed as correct.

On the motion of the President, seconded by the Hon. Secretary, it was RESOLVED that the Resolution passed 4th March with reference to the suspension of By-laws relating to Annual Elections [see page 120] be confirmed. The

NOTICES.

Annual General Meeting, 6th May.

The Annual General Meeting of the Royal Institute will be held Monday, 6th May 1918, at 5.30 p.m. precisely, for the following purposes:—

To read the Minutes of the Special General Meeting held Monday, 25th March 1918; formally to admit members attending for the first time.

To consider the Annual Report of the Council for the official year 1917-18 (printed on foregoing pages, and copies of which will be available at the meeting).

Election of Members, 10th June.

Applications for membership have been received from the following:—

AS FELLOW.

HOPE: ARTHUR JOHN [Licentiate, who has passed the Qualifying Examination for membership], of 19 Silverwell Street, Bolton; and "Wendeham" Atherton, near Manchester.—Proposed by John B. Gass, Paul Ogden, Isaac Taylor.

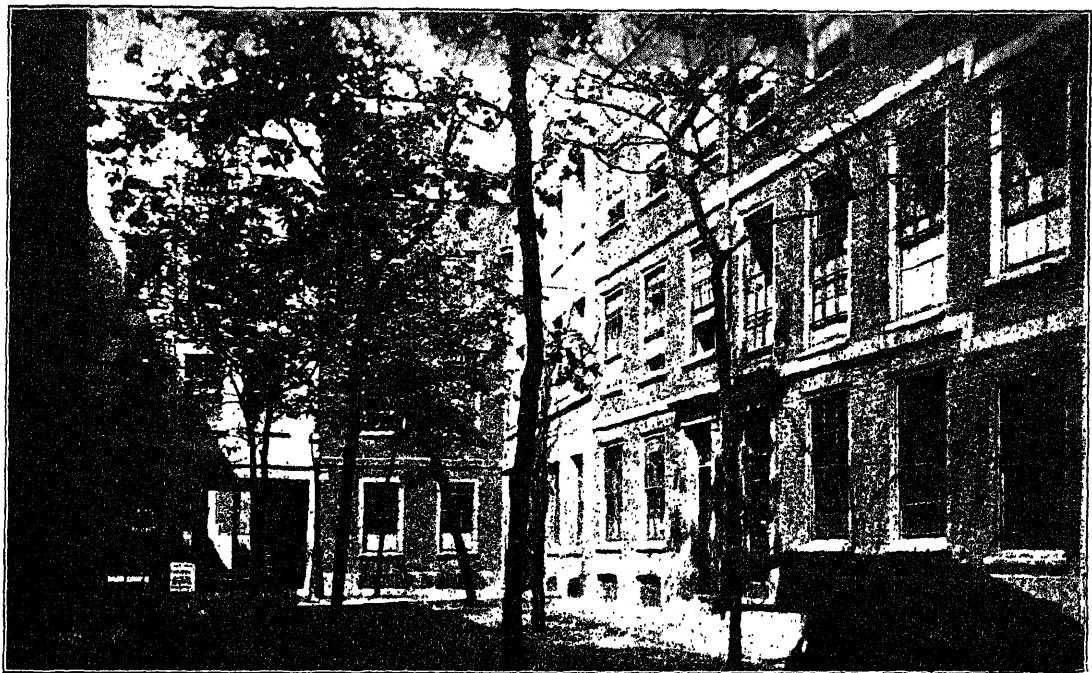
AS HON. ASSOCIATE.

WEST: REV. GEORGE HERBERT, D.D. [Associate 1871-1917], of Selsley Vicarage, near Stroud, Glos.—Proposed by the Council.

Notice of any objection to the nomination of the above gentlemen must be sent to the Council on or before 6th May.

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Photo, by Mr. Lionel Gowing.

WARDROBE PLACE, DOCTORS' COMMONS.
A surviving fragment of London as rebuilt immediately after the Great Fire.

THE REBUILDING OF LONDON AFTER THE GREAT FIRE OF 1666.

By WALTER GEORGE BELL, F.R.A.S.

Read before the Royal Institute of British Architects, Monday, 4th March, 1918.

I HAVE nothing to say this afternoon upon the Great Fire of London beyond a very few words, and I will ask you to go with me direct to the ruins, with one word of caution upon the way. In any measure of the public calamity one must not be misled by the mere area of the City and its Liberties as they lie to-day embedded in the vast masses of buildings that we call London. Like all European capitals at the time, Restoration London covered small ground, and that thickly. To the citizen of Charles II. the City and its Liberties were London, and in truth there was not very much else.

A considerable aggregation of houses stretched out towards Clerkenwell and Shoreditch; a line extended by Lincoln's Inn Fields, laid out in the previous reign, and Covent Garden, and by the Strand to Westminster; houses were built in Holborn towards St. Giles's, then literally "in the fields," and eastwards was a thin line from the City to Ratcliffe and Wapping. The nucleus of all was the City, which was the commercial and manufacturing and shopping area of the capital. It was the part most densely populated. Any estimate of numbers presents great difficulties, but from such sources of information as are available I believe that the entire population of Greater London, including Westminster, when the Fire struck the City was well under 600,000, and may not have exceeded a round half million. The burden thus fell upon a comparatively small concourse of people, and as a catastrophe the Fire of London was worse in its effects than a like event would be to-day, for fire insurance was then unknown, and the 13,200 houses destroyed, and vast quantities of goods and furniture consumed within them, represented to their owners a dead, irrecoverable loss.

The extent of the destruction is shown in Hollar's so-called "Surveigh" of the ruins. In reality it is a print based upon the careful survey by the six surveyors, the fringe of houses left standing being drawn in. Vertue's well-known print has the same basis.

The flames started between one and two o'clock on the morning of Sunday, September 2nd, 1666, in a baker's shop in Pudding Lane, close by Old London Bridge, and burnt that day till midnight to

Dowgate west, and a little below Bridge east. It was a riverside fire and nothing more. On Monday, the second day, the flames crossed Cannon Street and burnt up Gracechurch Street into the City, destroying Gresham's Royal Exchange, Cornhill, Lombard Street, and the rich merchants' houses thereabout, and a long arm sped west by the Thames-side to Baynard's Castle and Blackfriars. Tuesday, the third day, was the most terrible day of the Great Fire. In twenty-four hours the flames spread with appalling rapidity over an area larger than the whole extent of the ground cleared by the Fire on the two preceding days. Flames crossed Cheapside and reached London Wall at Cripplegate on the north, and burst through the western City gates of Aldersgate, Newgate and Ludgate, destroying nearly the whole of Fleet Street and part of Inner Temple. Fortunately the high east wind, which had driven the Fire onwards, dropped late that night.

On Wednesday, the fourth day, there were large fires at Cripplegate, in Cow Lane, Smithfield, in Shoe Lane and the massed houses north of Fleet Street, and at night a second outbreak in Inner Temple, which was almost entirely destroyed.

On Thursday, September 6th, the fire was out, but flames and smoke continued to rise for days, and even weeks after, among the goods smouldering in the demolished warehouses, in cellar stores, and on the heaped river wharves.

The extent of the destruction I fear is but poorly expressed in figures, formidable though they are :

436 acres of crowded City property were burnt, comprising 13,200 houses, in over 400 streets and courts ;

St. Paul's Cathedral ;

87 City churches (three of which were afterwards repaired) ;

Guildhall, the Sessions House, Customs House, and Royal Exchange ;

Newgate and Ludgate Prisons, the Fleet Prison, Bridewell, and Wood Street and Poultry Compters ;

Three City gates (damaged) ;

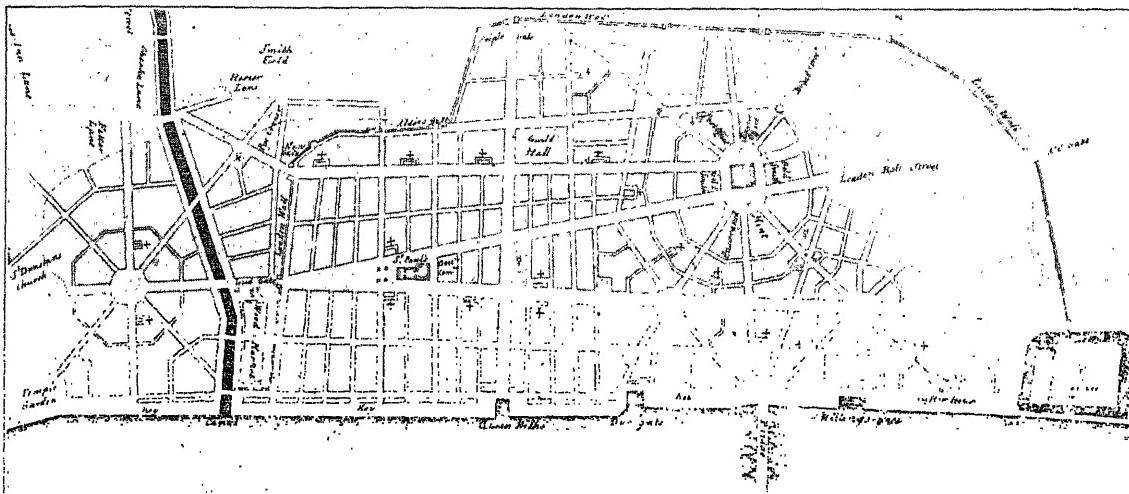
44 Companies' halls.

The King, on September 13th, issued a Royal Proclamation forbidding building until orders for the new City could be prepared. Meanwhile plans for a model London were hastily devised. As none of these could be carried out, I will deal with them briefly. The best known is Sir Christopher Wren's. It was an excellent plan, and one sees in it the great architect's desire to obtain long vistas along which he might most effectively bring into view his churches and towers and spires. Two perfectly straight main roads, each to be 90 feet in width, ran through the City west to east, from Ludgate to Aldgate and from Ludgate to the Tower. Ludgate was to come down, and in its place would be raised a great triumphal arch in honour of Charles II., the builder of the new London. Another straight street, 90 feet wide, traversed the City north to south, from Cripplegate to Queenhithe. A great open quay and promenade was proposed along the Thames-side, from the Tower to Temple Gardens. Adequate roads served London Bridge. A relined Cheapside ran straight from Newgate to the Royal Exchange. A fault of the plan is that the angle of the diverging highways west to east left a quite inadequate site for St. Paul's, and it seems inconceivable that Wren would have been content to build his Cathedral on ground hardly spacious enough for one of his larger parish churches.

John Evelyn's ideas were quite different, though in broad outline his plan is not dissimilar to Wren's. His model City is more Continental in style. He banished the whole of the shipping, warehouses and wharves to the Surrey side of the river, and laid out his town with straight streets and many open spaces, in which last piazzas should be constructed and fountains play. All burial grounds were to be outside the City wall, and there, too, the inns for the accommodation of country carriers and travellers were to be situated. Those of a trade were to be grouped together. The booksellers, for instance, were to be gathered about the Cathedral. He proposed considerable levelling of ground, utilising the rubbish to fill up the Thames foreshore, so that his City stood always upon the water.

Evelyn placed his triumphal arch and grand entrance to the new City east, upon Tower Hill, not west.

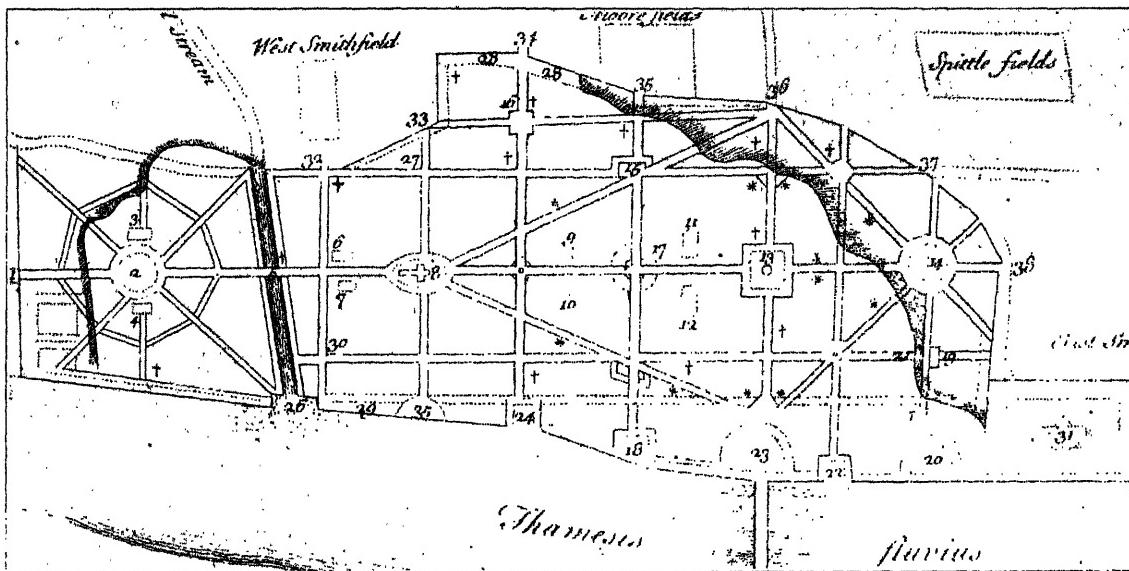
Robert Hooke drew a geometrical plan of straight streets, all crossing at right angles, which would



SIR CHRISTOPHER WREN'S MODEL PLAN FOR REBUILDING LONDON.

have given us a typical modern American city. This we are happily spared. It found some favour with the Lord Mayor and Aldermen.

Valentine Knight's plan—really it is no plan at all—calls for mention only because of its novel



JOHN EVELYN'S PLAN FOR REBUILDING LONDON.

proposal of a navigable canal, with entrance from the Thames at Billingsgate, thence going north into the City to Fenchurch Street, and turning west via Lothbury and through the wall above Aldersgate to join the Fleet River, and so back to the Thames again.

A winter of terrible severity, the coldest known for many years, added to the miseries and

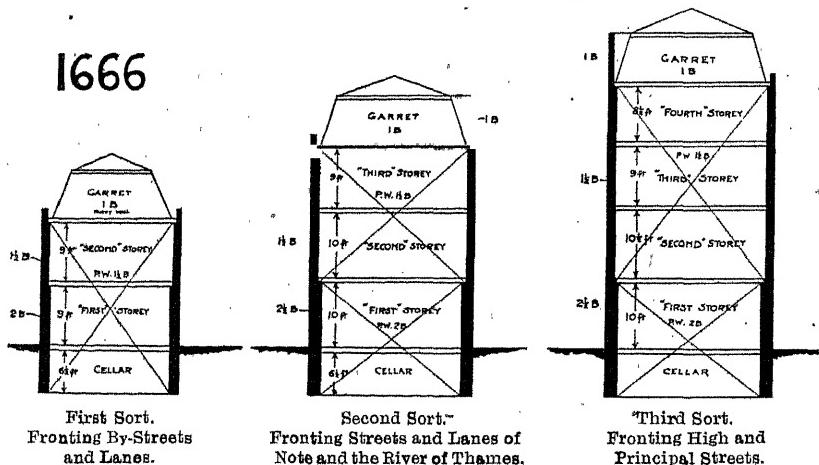
privations of the homeless people. The frozen Thames was packed with ice. Rents for the houses left standing reached unprecedented heights. It was February, 1667, when the Act for Rebuilding the City was passed; in March the City Surveyors were authorised to buy stakes for setting out the streets; in April they staked the first of the highways near St. Paul's; in May the staking out of plots for house-building began—the rigours of winter and the necessity of clearing away the enormous accumulation of debris that covered the ground having caused this delay after the legislative measures were ready.

The City that arose out of London's ashes was built under the nominal supervision of Wren, but his personal attention was small, his time being mainly given to his churches and Cathedral and public buildings. He left to Hooke and the City Surveyors the business of measuring, adjusting and setting out the ground for the streets and private dwellings. Sir John Denham, the Cavalier poet, having the office of Surveyor-General of His Majesty's Works and being irremovable, the King created for Wren the new post of "Surveyor-General and Principal Architect for rebuilding the whole City, the Cathedral Church of St. Paul, and all the principal churches, with other public structures." Wren was but thirty-four years of age when he assumed the greatest burden ever placed upon one architect's shoulders.

On Denham's death in 1669 Wren himself became Surveyor-General of His Majesty's Works, and five years later he received his knighthood.

The important Act for the Rebuilding of the City of London (Stat. 18 and 19 Chas. II., c. 8) I need not enter upon in detail, for it was dealt with in an admirable paper by Mr. Davidge on "London's Bygone Building Acts," read to this Institute in 1914, and printed in your JOURNAL.* The peril of fire always present in a city of timber-built houses having received most emphatic evidence in the recent destruction of London, the Act directed that no house should in future be built save of brick or stone. Four types of houses only were allowed in the new City. For each the thickness of brick walls, heights from floor to ceiling, sufficiency of party walls, scantling of timbers, and much other

1666



Roofs of these three sorts to be uniform. Fourth or Largest Sort not fronting on a street or way, height of storeys optional, but not to exceed four storeys in addition to garret and cellar.

detail were set out in scheduled tables. The drawing here reproduced, showing sections of the first three types of houses, I take from Mr. Davidge's paper.

The Act is of considerable length, and with the Additional Building Act, three years later, it should be carefully read by those desirous of knowing the conditions in the new City. It made

* Vol. XXI, 3rd ser. pp. 333-369.

provision for the straightening of streets, the widening of others, and the reduction of steep acclivities. Its labour clauses are highly important. Labour by City "freemen" alone obviously must have been insufficient for the many thousands of dwellings and public buildings that had to be raised. Accordingly the guilds in the building crafts were despoiled of the cherished monopoly they had enjoyed for centuries. Workmen from any part of the Kingdom were by the Rebuilding Act made free to work in London, any law or custom to the contrary notwithstanding. Those labouring in the rebuilding of the City for seven years were to receive the freedom. Combinations of workmen to raise wages or of manufacturers to raise prices were forbidden. Wages and prices might, on complaint by the Lord Mayor and Aldermen, be fixed by the Judges.

There are several houses still standing which were erected under the Rebuilding Act passed within six months of the Great Fire. In Wardrobe Place, Doctors' Commons, there survives a charming corner of London as rebuilt immediately after the Great Fire, with its trees and shade and strong sunlight, which stands to-day largely untouched. Three little shops in Cheapside, at the Wood Street corner, are still more familiar. They were built in 1667, as a tablet upon the rear wall tells, and are the only surviving examples of "the first and least sort of building," of two stories, for by-streets and lanes, authorised under the Rebuilding Act of 1667. Each house consists of two rooms only, one above another. Standing three together to-day, there were originally four. They happened to come upon such important frontage as Cheapside by reason of the fact that the site is very shallow, only a few feet, and insufficient for larger dwellings.

A corner house in Watling Street, known as "Ye Old Watling Restaurant," a type of the second sort of building, of three stories, "for streets and lanes of note," authorised under the Rebuilding Act, happily still stands in the City, and to my mind it is one of the best examples of the dwelling-house and shop of Charles II. that we have. It dates from about 1668-70, and it has been claimed for it that it was the first house built after the Great Fire of London. That claim, I must allow, has been shared by a good many others.

Another familiar house in Cheapside is No. 37, which has on its wall the stone sign of the Chained Swan. It is a type of the third sort of building, of four stories, "fronting high and principal streets." A modern tablet has been placed upon it stating that this is the only house in Cheapside which escaped the Great Fire. If that be so, we may congratulate the builder upon the sagacity with which he was able to forecast the clauses of the Rebuilding Act passed six months after the Fire.

In that wholly delightful building, No. 34, Great Tower Street, we have what is, I think, the finest surviving example of the house built immediately after the Great Fire. It is a type of the fourth sort of building authorised by the Rebuilding Act, or City merchant's mansion house, "of the greatest bigness." The elevation speaks for itself. On the ground floor you find the merchant's office still in use exactly, I imagine, as it must have been in early Georgian days. What were originally the merchant's dining-room and ante-rooms extend the full length of the first floor, and contain some rich carving. This house is one of the treasures of the City, and in the careful hands of my friend Mr. Yeatman, whose enthusiasm for its preservation is certainly not less than my own, I am glad to know that no harm is likely to befall it.

Other City houses are standing of the period of rebuilding just after the Great Fire of London. In Godliman Street, close by St. Paul's, is a corner house now used as the Faculty Office. The curious timber framing amidst the brickwork, as it appears to be in the actual building, is at the present time covered with cement, and whether there are timber beams behind or not I cannot say. There are houses in Crane Court, Fleet Street, one of which is excellently preserved and bears over the door the date 1671, and in Racquet Court, Fleet Street. A tall house in Savage Gardens presents no particular architectural features, but is one of the few ancient houses spared by the Port of London Authority when making their great clearance about Tower Hill. Then a picturesque corner building in Milk Street, Cheapside, is known, no doubt, to many of you. A pair of fine old houses, now used as one,

fills the back of Bow Churchyard, Cheapside, and must date very close to the Fire. Others besides these may be seen in a walk through the City streets.

The Canons' houses at Amen Corner stand on the site occupied by the Royal College of Physicians which was destroyed in the Great Fire. The College abandoned the site in 1670, and the buildings, now enlarged at the rear, were erected shortly afterwards.

The greatest aid in the rebuilding of London was unquestionably that given by an Act of Parliament which has been little appreciated and understood—the Statute 18 and 19 Charles II., chap. 7. which set up the Court of Fire Judges. Any three or more of his Majesty's Judges were authorised to hear and determine all differences between landlords, tenants, occupiers and others concerned, of buildings burnt or demolished in the Fire, with appeal to a Court of seven Judges. The broad principle of the Act is set out in the significant words of the preamble, a sentence of which reads : “*And for that it is just that everyone concerned should bear a proportionable share of the loss, according to their several interests . . . be it enacted,*” etc. The Act was, in fact, the negation of all law. All rights of parties enjoyed under leases or bonds lapsed ; the Court first sought to ascertain, not upon whom the onus of rebuilding fell under the lease, but whether landlord or tenant was best able to rebuild speedily, and acted equitably between the different interests.

Where the landlord was without means to reinstate the tenant in his dwelling, the Court would give the tenant leave to rebuild at his own expense, compensating him by an extension of the term of his lease and a reduction of rent.

Where the tenant was broken in fortune, the Court would cancel his lease and relieve him of liability.

Where landlord and tenant were alike ruined, London's interests were protected by a provision in the Rebuilding Act that any sites not built upon after lapse of three years should, after nine months' notice given, be seized by the Lord Mayor and Aldermen and sold to a builder, the proceeds of sale going to the landowner. This power of seizure was twice postponed by subsequent Acts of Parliament, and, in fact, it was never exercised.

The Fire Court decided some hundreds of disputes, and its influence was far reaching. Other thousands of differences were amicably settled ; the knowledge that it was open at any time for the tenant to appear without charge before the Judges checked the rapacity of the grasping landowner, inducing him to accept terms, lest worse should befall him.

London after the Great Fire remained for a decade, and then for a second decade, a city marked all over with ruins.

It is plain that Parliament had no conception of the immensity of the task which confronted the citizens in restoring London. Its only financial contribution was the Coal Dues, which themselves were partly borne by the distressed citizens, so little assistance did they receive. The shilling duty originally imposed brought in to Midsummer Day, 1670, close upon four years after the Fire, only £32,630. The sum was ludicrously insufficient, and that year the Coal Dues were raised to 3s. per ton and the term extended to twenty years, till 1687 ; in fact, they survived over two centuries until repealed by Lord Randolph Churchill in our own time. Accumulations of the Coal Dues over long years paid for St. Paul's, for Wren's City churches, for many public buildings and for street improvements. If we complain of the grime that since has gathered about the walls of St. Paul's and elsewhere, let us in honesty remember the vast debt that London owes to coal, the one source of revenue which made possible the fulfilment of all Wren's majestic conceptions that are still our heritage.

All Londoners know the Fire Monument, though little, perhaps, of the inscriptions upon it ; but one of these has been so often repeated that this at least should be familiar. “London” (it says) “rises again, whether with greater speed or greater magnificence is doubtful, three short years complete that which was considered the work of an age.”

In three years ! It is not true, and the statement has done incalculable mischief. This boastful

legend has belittled the vast work accomplished by the citizens, making it appear as nothing ; that in three years a new London complete, richer and more magnificent, stood on the ground over which the flames had ravaged. I have to tell a plain tale, extracted with much labour from surveyors' returns, from building accounts, the minutes of the City Corporation and craft guilds, and memoirs and letters, of how after long effort—and not in three years—the task was carried to completion against difficulties that might have seemed insurmountable.

The Fire, destroying 436 acres of City property, swept away in four days much of the City revenues and the revenues of the Livery Companies. Merchants were reduced in fortune, and many ruined. The City Corporation, with commendable enterprise, shouldered the task of restoring order out of the chaos, always importunate for money, but happily with credit good enough for a loan. Its treasury was filled and emptied vicariously. Loans to the King were outstanding, and only with the greatest difficulty were collected.

Yet much was done by aid of loans, fines, receipts from the Coal Dues, and other sources. I mention the chief of the public buildings, enough to throw over the three years' legend. The new Royal Exchange, built at the joint charge of the Mercers' Company and the City Corporation, was opened in September 1669. Guildhall was under scaffolding nearly ten years, as the work went on continuously till December 1675, the expenditure then having totalled £37,422. Newgate was patched up sufficiently to serve its historic purpose as a gaol till 1670, when the work of new building was begun in earnest, and five years later, in 1675, was completed. Ludgate was repaired and its prison rebuilt between 1670 and 1673.

In the matter of private enterprise the Livery Companies, to their enduring credit, led the way in the rebuilding of London. The disaster fell upon them with crushing severity. Forty-four of their halls were burnt, and only seven, so far as I can trace, escaped the flames. Their first thought was the restoration of their halls, and the task was begun in many cases before the dwelling-houses and warehouses of individual liverymen could be rebuilt. It was financed by subscriptions and loans from the richer members, by sales of property left standing, the sale or pawning of plate, and assessment upon members. The Fire of London reduced a large proportion of the Companies to penury ; their revenues from City endowments were lost, benefactions and pensions had to be withheld, and many of them never thereafter recovered their prosperity.

Samuel Rolle in the spring of 1668 estimated that there were then eight hundred houses rebuilt in the fire-swept area ; some thought more. "It is," he said, "an ill prospect, and a ghastly sight, for those who look from the balconies or tops of their stately new houses, to see ashes and ruinous heaps on every side of them—to see ten private houses (besides churches and public halls) in the dust for one that is raised again." The larger number of buildings erected on the ruins were let to alehouse keepers and victuallers, to entertain workmen employed about the City. In Cheapside and other centres of commerce merchants had built dwellings, but refrained from going into them until the neighbourhood be increased, fearing thieves as well as unprofitable trade.*

That is a picture of London nineteen months after the Great Fire, which, as I have already stated, destroyed 13,200 houses. Rolle's estimate of eight hundred new buildings is probably over rather than under the mark, for up to December 1667 the City Surveyors had staked out foundations for houses only in some 650 odd cases, so slow had been the recovery after the Fire. But a period of greater enterprise was at hand. I give only a summary of the figures.

In the first six months of 1668 a beginning was made with the erection of 1,200 houses, the progress made in new building, as might be expected, falling off towards winter.

In the spring of 1669 a somewhat larger number of new houses were under scaffolding than in the previous year, in round numbers about 1,400.

* *The Rebuilding of London, 1668.*

This rate of construction was continuous until the autumn of the year 1670.

Thereafter it greatly slackened, and labour, being less in demand for private dwellings, was diverted to the erection of public buildings and churches. In estimating the progress made in rebuilding the City as a whole, it must be borne in mind that at this time—autumn 1670, four years after the Fire—not more than a dozen of the forty-four Livery Companies' halls destroyed by the flames had been rebuilt and placed in use, and that the Guildhall, Custom House, Blackwell Hall (the City's cloth market), the prisons and the gates were also unfinished. Not one of the eighty-four City churches destroyed had been replaced. The decision to build the first of the churches was taken in 1670, and in that year a start was made with fourteen of their number.

Labour in the building trades gravitated to London from all parts of the Kingdom.

The King, to encourage rebuilding, remitted the Hearth Tax for seven years on houses newly built in London. Land frequently passed to new ownership, or, where the freehold was retained, the building tenant was allowed a peppercorn rent for a series of years, or a reduced rent for the term of a lease. A common basis of valuation of City land was that the annual site value was one-third of the combined rental of house and ground. In places where street improvements gave land lying back an important frontage its value rose to as much as 15s. a foot. Values change : in our own day £50 a foot has many times been paid for freehold City sites.

Most divergent views have been held concerning the relative cost of building under Charles II. and to-day, and some have thought that prices have advanced three, four, and even five times. A basis of comparison, and thereby some idea of the charge of rebuilding London, can only be obtained from priced accounts of labour and materials. A key to the solution of this problem is forthcoming in the discovery by Mr. Lawrence Weaver, among the Rawlinson MSS. at the Bodleian Library, of Wren's complete building accounts for the City parochial churches. Mr. Weaver recently read a paper before the Society of Antiquaries on these accounts,* and he had the good fortune to inspire Mr. William Lunn, senior partner of Messrs. Widnell & Trollope, to undertake the laborious task of pricing all the items in the construction of two important churches at the rates prevailing just before the European War.

The result is somewhat surprising. Wren's building cost for St. Mary-le-Bow, Cheapside, was £15,473. The church could be built to-day (materials and labour, that is) for no more than £38,500—an addition of 150 per cent. to the original cost. St. Stephen Walbrook, which is held by so many architects to be the finest of all Wren's churches, cost Wren £7,652 ; to-day the contractors' bills would amount to £15,408—an addition of 100 per cent. to the original cost. The larger percentage of increase in the case of St. Mary-le-Bow is due to the more extensive use of masonry in that church. It is the small details of these bills, the sums paid to individual craftsmen, and the prices of bricks, timber, plaster work, painting and carting, that are most informative upon the cost of rebuilding the citizens' houses.

Labour, as was to be expected, accounts for the larger part of the increase. The unskilled labourer of the Restoration received 1s. 6d. per working day of ten hours. To-day he would be paid 7s. 6d. Skilled craftsmen's wages were equally low. Carpenters were content with 2s. 6d. to 3s. 6d. per day, according to the work, where to-day the payment would be 11s. 8d. Bricklayers receive three times the wages paid by Wren ; skilled masons slightly more. The great increase in wages has been compensated in part by cheapening in the manufacture of materials and use of machinery. Ironwork remains at about the same price, the plates, bars and rods now turned out by rolling mills having at the Restoration to be forged by hand. Brickwork per rod has advanced from £5 10s. to £17, bricks per M from 14s. to £1 16s. Wren used lead very generously. Its price per cwt., with labour, has risen from 17s. 6d. to £1 10s. ; plain plastering on walls, per yard, from 7d. to 1s. 2d. The only item

* Printed in *Archæologia*, vol. lxvi., p. 1.

actually less in cost to-day than in the latter half of the seventeenth century is painting, which for three oils per yard was 1s., and now is 10d., the advance in painters' wages being more than compensated by the improved manufacture of colours. I hope I have made it clear that these are standard prices before the labour and market disturbances caused by the Great War ; prices to which we may—or may not—return.

After the Fire of London the Surveyors reported 13,200 houses destroyed. Land was taken for widening streets and establishing markets ; alleys were abolished. Much slum property, wooden hovels built back to back, which are unduly dignified with the name of house, gave place to more sanitary brick dwellings. Larger buildings were favoured ; and for all these reasons it is unlikely that the houses newly built in the City exceeded nine thousand in number. The reduction is strikingly large, and indicates that the improvement of London after the Great Fire was more important than has been generally conceded—much larger, in fact, than I had been prepared for ; but I have been compelled to accept these figures after perusal of the accounts of payments for staking out foundations, which apparently are complete.

There are several contemporary estimates of the loss occasioned by the Great Fire of London, the most detailed of which places it at £10,788,500 in then money values. In this estimate the 13,200 houses burnt are taken one with another at £25 rent at the low rate of twelve years' purchase, a flat rate valuation of £300 each. Interest was high in Charles II.'s time, 8 and 9 per cent. being not uncommon, so the average of twelve years' purchase may not be far out.

The flaw in all calculations is the impossibility of striking any but an approximate average of the cost. In a little handbook, *The Purchaser's Pattern*, published in 1676 for guidance of builders and investors, example is made of the third sort of house, for important street frontages like Cheapside, four stories high with additional garrets and cellars—a house, for instance, like "the Chained Swan." It says the cost of such a building cannot exceed £400. Taking £300 as a flat rate of the actual cost of each of nine thousand houses, and two and a quarter as an average ratio of increase in building cost to-day, we arrive at £6,075,000 as the burden borne by the citizens in rebuilding their houses expressed in modern money values.

Funds from public sources collected, like the Coal Dues, over areas larger than that swept by the Fire restored the City's public buildings that were destroyed, and with the passage of many years St. Paul's Cathedral and the City churches also. State funds met State losses, as at the Custom House and elsewhere ; the Crown from its widespread revenues made good its devastated property in London ; the corporate guilds rebuilt their halls, though often reduced to penury ; but whence came all the money for rebuilding the thousands of private houses consumed in the Fire I frankly confess I do not know, unless it be the stocking hoard. The fact of the accomplishment remains. There was no scheme of public assistance.

It was an age when large affairs of commerce were conducted without banks, without insurance ; a time when the careful merchant stored his money bags under his own roof, jealously guarding them against theft. The diligent reader of Pepys's *Diary* is kept informed how his money bags expanded in bulk and in number, the golden guineas hoarded away, first in hundreds, then in thousands—the bags of gold that he carefully removed to Woolwich away from the peril of the Fire, as no doubt did many another City merchant when the threat came near his house. The City merchant saved, unlike the spendthrift courtiers in the West-end. Time and again, as the long experience of City loans has shown, the merchants' hoard bore the national burdens, and now it came out to restore the burnt City.

After the first shock and paralysis caused by the Fire there followed a period of a few brief years when rebuilding made rapid progress. London, living largely upon the capital which flowed out with much prodigality, appeared outwardly to be prosperous. But such appearances were entirely illusory, just as appearances are to-day in the midst of the European War. At the close of the period 1668-73, when the rebuilding had gone so far that the commercial needs of the capital were for the greater part

satisfied, trade was gravely depressed. Dwellings and shops were unlet, wanting tenants. It is startling to learn that there should have been in 1672, as a contemporary writer asserts, whole streets of houses new built within the City standing uninhabited, "and no person so much as asks the price of any."

An address by the citizens to Parliament in the year 1674 sets out that houses in the City still empty and sites yet unbuilt upon numbered three thousand, being nearly one-sixth of the total in the City and Liberties. Large sums of money formerly employed in trade had been withdrawn for rebuilding; moreover, many City traders had settled in the out-parishes, and, finding the burdens there lighter, would not return.

A city of nine thousand houses newly built rose out of the ruins, and a curious thing is that not one architect's name is identified with it. At other times architects of genius have stamped their names upon their style and generation, but the greatest opportunity ever afforded in domestic architecture, at least in this country, by the rebuilding of London, passed without producing any notable man. Sir Christopher Wren there was, of course—but Wren, engrossed with so much other work, did not build the nine thousand new dwelling-houses, nor does the name survive of any designer. The model of the brick house had been evolved in earlier years by Inigo Jones and John Webb, whose buildings display complete mastery in the use of brickwork for plain wall surfaces; and the general principles they set out were followed with few modifications in the streets of new houses erected after the Great Fire.

Four classes of buildings only were allowed under the Rebuilding Act, and the specifications secured a uniformity so conspicuously lacking before. But it would be folly to imagine that the new City was built on four architects' drawings. There was great variety in the proportions of houses and in simple decorative treatment. Rubbed brick for window dressings, as well as for other architectural features, had been introduced about the time of the Restoration, and its use was much developed. The Lord Mayor, Aldermen and Commons, in an order of 8th May 1667 instructed the Surveyors to encourage all builders, "for ornament's sake," to employ rubbed brick in their ornaments and projections on the fronts of buildings, and to make their plain surfaces of bricks neatly wrought or rubbed at discretion. Artistic care was lavished upon highly decorated doorways and the detail of eaves under the roofs. Balconies stood out to the high streets from the fronts of the larger houses—they were required by the Act. The signs again swung over the footways. The pretty casement windows of the old City were restored; though the sash frame was known, its use was not general till at least five-and-twenty years later. The bow shop-window, so admirable a feature of eighteenth-century London, came in with the Georges.

The City was repopulated long before the new churches were ready for the people. Fourteen churches only had been completed by 1678, twelve years after the Fire, besides three repaired, five others being far advanced. By the year 1683 London possessed twenty-five of its new churches, seventeen others being nearly finished. It was then seventeen years after the Fire; three churches were but lately begun, and there were still six others awaiting to be commenced from the foundations. St. Paul's Cathedral still required twenty-seven years for completion. Facts like these, added to what has been said concerning the time required for the public buildings and streets of new houses, make ridiculous the claim upon the Fire Monument that London, more magnificent than ever, was restored complete in the short span of three years. Of course, no one with any gift of inquiry could have taken it seriously, but it has done much evil.

The sanitary improvement of London which followed the Great Fire is too large a subject to be dealt with adequately at the end of a paper of this length. The Act of 1671 is London's sanitary charter. It enlarged and made permanent powers which had been given tentatively in the Rebuilding Act. The Lord Mayor, Aldermen and Common Council were authorised to nominate a body of persons who should be the sole sanitary authority for the City. They were to appoint the places for all sewers,

drains and vaults, and be responsible for their scouring and for the pitching and paving of streets. All other commissioners whatsoever were forbidden to meddle in these matters. They had authority to charge the cost upon the owners of all houses benefiting, and to make assessment of a sanitary tax on the several Wards from time to time. London at last had a central, effective and all-embracing sanitary authority. I do not suggest that the conditions thereafter prevailing would be considered satisfactory to-day, but they were a noteworthy advance on the previous state. It may not be true, as old writers asserted, that the Great Fire, by burning deep down into the ground, burnt out the Plague which had become harboured in the soil; but to the destruction of so many streets of dark and evil timber-built houses, falling or fallen into decay, and the opening up of the worst areas and the general sanitary improvement which followed, we owe the fact that for two and a half centuries never again has the Plague visited London.

I am conscious of having omitted a great deal in an endeavour to cover so much ground within the space of a single paper; but may I say that the results of this inquiry in greater detail will be available, I hope before long, in book form for your members who may be interested in the subject?

DISCUSSION ON THE FOREGOING PAPER.

The President, MR. HENRY T. HARE, in the Chair.

MR. PHILIP NORMAN, LL.D., F.S.A.: I have much pleasure in proposing a cordial vote of thank to Mr. Bell for his interesting paper. I have always respected his attainments in London topography, from the time when I read his book on Fleet Street, and found that he had been diligent enough, and fortunate enough, to hit off a fact which my friend the late Dr. Wheatley and other members of the Pepys Club had failed to discover, though they would have given their eyes to do so, namely, that the immortal Samuel was born in the parish of St. Bride. Now that he has turned his attention to the subject of the Great Fire I am sure he will work at it with the same thoroughness he has shown in producing his book on Fleet Street. Some of those present may regret that Wren's plan for rebuilding London was not carried out after the Fire; but I do not quite agree with that. No doubt he would have made of it a fine city, but he would have swept away many things of great interest. We should have lost the historic streets, and the historic sites of churches and Companies' Halls, probably also the unburnt portions within the walls. I think therefore that, on the whole, it was better for us to have the City rebuilt as it was than on Wren's plan, or even on a modification of it. In one respect he showed himself nearly two centuries ahead of his time, that was in his suggestion of extra-mural burial, which did not become the law as applied to the City until after 1850. According to his original plan there was to have been an esplanade from the Tower of London to Blackfriars, and the Halls of the twelve Great Companies would have been united in a Square by the Guildhall. There is a slight question about what he really proposed in this respect, for in the *Parentalia* "a late Critick," quoted with approval, after mentioning that Wren had "plan'd a long and

broad wharf or quay," adds that he "there design'd to have rang'd all the Halls that belong to the several Companies of the City, with proper Warehouses for Merchants between, to vary the Edifices, and make it at once one of the most beautiful and most useful Ranges of Structure in the World." Perhaps he meant to place the numerous halls of the lesser Companies there, and they would have looked fine along the river front. I have been studying the City Halls a good deal in a desultory way, and venture to remark that although Elmes, in his account of Sir Christopher, names him as the architect of something like a dozen of them, I have never yet been able to discover that he designed any Hall in the City, but as a rule they were rebuilt in what we might call Wrenian style. It has been sometimes said that Merchant Taylors' Hall was designed by him; nowadays, however, we know that this was not the case. By degrees it has been discovered, partly during repairs and excavations, partly through the researches of Mr. H. C. Hopkinson, a past Master, that, although in a district round which the Fire raged fiercely, the banqueting hall, the mediaeval cellar and crypt escaped with no very serious damage. The general plan and to a large extent the masonry of the hall belong to the latter half of the fourteenth century; the kitchen was a little later. A few other isolated buildings within the area supposed to have been destroyed by the Great Fire escaped. One that I knew must have been just on the borderland. This was No. 4 Coleman Street, adjoining the offices of Messrs. Colls & Sons (now Trollope & Colls), pulled down and the site absorbed by them about the year 1896. There was a room on the first floor of that house which was distinctly Jacobean in style. I made a drawing of it, now in the Victoria and Albert Museum. The funds at Wren's disposal for the rebuilding of City

Churches were limited, thus it happened that, wherever he could, he utilised the walls and towers which remained. The lower parts of several towers of Wren's churches still in existence obviously belonged to the former building, for instance those of St. Anne and St. Agnes, St. Andrew Holborn, St. Mary Aldermanbury, and St. Mary Aldermury. When one of his churches has been destroyed, an act of vandalism which I hope will not occur again, important mediæval remains have often come to light. For instance, when the church of St. Michael, Wood Street, was pulled down, which to outward appearance was a very plain building, no more than an oblong apartment with a tower at the west end, it was shown to have had originally a south aisle, and when the plaster was removed, the ground stage of the tower was revealed almost intact as part of a building which, from documentary evidence, we know to have been erected on a vacant piece of ground bequeathed for that purpose under a will dated 1429-30. The walls also contained much ancient masonry and encaustic tiles, and many fragments of mediæval glass were dug up. Much the same thing occurred at St. Michael's, Bassishaw, destroyed immediately afterwards. The tower was also of the fifteenth century. Chalk foundation walls came to light, and at the east end of the south aisle I saw the entrance to Sir John Gresham's vault, and read the inscription on it. He was uncle of Sir Thomas, ancestor of the Leveson Gowers of Titsey, and died in 1557. Mr. Bell has described the rules laid down for the building of four types of house of varying degrees of importance after the Great Fire, and has shown us on the screen examples of such houses still remaining. The list could be extended. For instance, there is the so-called "Old Mansion House," No. 73 Cheapside, said to have been occupied by a Lord Mayor during his term of office before the building of the present Mansion House. In modern times it was Mr. Tegg's, the bookseller's. The frontage looks unpromising, having been modernised, but the staircase, with massive turned balusters, must date from immediately after the Fire. Numbers 32 and 33 Mark Lane are also interesting examples of houses claiming considerable antiquity. They stand back, at the end of a narrow courtyard, and at each end of a passage under No. 32 is a handsome doorway with elaborately carved pediment. Behind this passage was formerly a garden, now built over, and on the left stands No. 33, which appears to have been originally an added wing of the other house. It has a staircase with some delicately carved woodwork and other decorative features, but unfortunately has been somewhat damaged by a recent fire. I do not claim for it that it is of the period dealt with in Mr. Bell's lecture; I think, however, that it was added to the older house at about the end of the seventeenth century. A few years ago there was a very fine old house in a courtyard opening into Botolph Lane, with a back entrance in Love Lane, which was latterly

used as the Tower and Billingsgate Ward School. It was called Sir Christopher Wren's house, the idea having been started apparently by Mrs. Riddell, who, in her novel called *Mitre Court*, made it the abode of her heroine. There is no contemporary evidence of Wren ever having had any connection with it. On the staircase it bore the date 1670, and to the left of the entrance there was a small room (only 18 ft. by 15 ft.) which had a handsome plaster ceiling and mantelpiece, and was panelled throughout, and covered from floor to ceiling with paintings of tropical scenes. Fortunately we know the name of the artist, for one of the panels is signed "R. Robinson, 1696." Soon after the beginning of this century the house was threatened with destruction; efforts to save it were vain, and it was pulled down in the year 1906. The fittings, however, of the small room just mentioned were carefully preserved by the authorities of Sir John Cass's foundation, into whose hands they had come, and on the building of the Cass schools in Duke Street, Aldgate, they were placed in a room specially designed to contain them. The paintings can now be seen to much greater advantage than formerly, as they have been freed from many layers of brown varnish, and one can enjoy a most pleasant example of colour decoration of its period.

PROF. BERESFORD PITE [F.]: It gives me considerable pleasure to second this vote of thanks to Mr. Bell for his important paper. I do not know that it would be proper to add anything to the vote of thanks, but Mr. Norman's exceedingly interesting remarks have also given value to the occasion. To us, as professional architects, who have come into existence and growth as a practising guild in London since the Fire, this subject is one of peculiar interest. Architects did not exist in any sense as a profession until Inigo Jones, our great begetter, began professional work from the basis of the draughtsman and artist. Then Sir Christopher Wren, on account of his scientific attainments, obtained the confidence of the Government and his place on the Commission for the repair of Saint Paul's, and, ultimately, on the Commission to rebuild it, and his place on the Commission for rebuilding the City churches. Mr. Bell's clearness as to the absence of architects and architectural work on the rebuilding of London, makes the position of Wren very significant and important; and, I suggest, it makes our position, as a guild of professional beings who came into existence since that date, also interesting. It would be interesting if we could visualise what a capital city was like at the date of the Great Fire of London. Paris, with its charming places and residences of kings and the nobility—from which our modern type of street architecture has grown—was, in its other portions, I do not doubt, a dense mass of slum horror and remained a squalid mediæval city, intersected by thoroughfares, though containing these charming places. In Rome, the case was different, for at this epoch they were laying out great thoroughfares across the City, employing archi-

tects to design continuous street façades. The point I would make and suggest is, that there was no street architecture, consequently there were no street architects, until Inigo Jones introduced the idea into Lincoln's Inn Fields of combining houses into a façade. There was the Gothic house, with its own gable, its own projections, its own bow windows ; but there was no idea of continuous architecture, of street architecture, or the grouping of houses together. There was none of the stock in trade of the ordinary architect : that had yet to be created. Architecture was an art in the hands of Inigo Jones : it was a science in the hands of a scientist like Sir Christopher Wren. From the work of those two extraordinary men we have derived our very fine school of English Renaissance. And it is worth while bearing in mind, that the conditions in England should be compared with the conditions on the Continent suggested by Paris and Rome. You have to reflect that there grew up baroque architecture on the Continent which we did not have at home : there is nothing representing in England the aggressive baroque and rococo of Continental architecture. There may be other things to say about that, but I suggest that the Puritanism and the English habit of mind are reflected in the restraint throughout the whole of the eighteenth century architecture. It has been interesting to reflect that there were no architects because there was no civil architecture, and that our Renaissance architecture grew up between Inigo Jones' and Sir Christopher Wren's enormous visionary schemes, especially in Renaissance ecclesiastical architecture. It is interesting to try to visualise the epoch. Blessed are our eyes, for they see Westminster Abbey : the mediæval builders never did complete it. Henry VII. Chapel and the western towers, and even the western end of the nave, were incomplete at the time of the Reformation. We try to visualise Pepys and Robert Walpole, but did they see St. Paul's ? No. Again blessed are our eyes, for they see. That wonderful building was not completed for more than thirty years after the Fire, or was not commenced, I think, for three years after the rebuilding of the City had begun. Thousands of pounds had been spent in trying to patch up the old Cathedral before the Commissioners made up their minds to start a new one. When these things come home to us, the mental background with which we read Pepys is considerably altered.

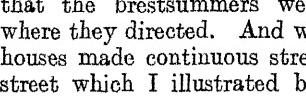
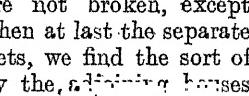
MR. W. R. DAVIDGE [A.] : It would be interesting if Mr. Bell would indicate to us any facts which have a direct bearing on the catastrophe of the present time. One of the difficulties in connection with the rebuilding of a mighty city would be that of bricks ; bricks would not be available for at least a year, and the brickfields in the neighbourhood would be extremely busy providing for a supply which was so abnormal. In that respect the vast reconstruction which will come after the war will have some bearing on what we have heard. I wonder whether Mr. Bell

has come across anything in his researches showing any preferential system or Government control of particular classes of buildings, which might have a bearing on what might have to be done at the present time. There must be some form of consideration, at any rate, as to what the forms of new construction after the war shall be, and anything which Mr. Bell can show bearing on the present position will, I think, have a very particular value and interest. I think there is a great deal of up-to-date as well as of historic interest in the way in which the Building Acts were administered after the Great Fire. We find a valuable prohibition against "rings" to force up prices of either material or labour, another provision allowing for the charging of "betterment" on premises improved, and so on, and I would like to hear if there were any inducements held out to country builders, or to builders on the outskirts of London, to come and work after the Fire, or was it simply a question of supply and demand ? Disputes were undoubtedly dealt with by a firm hand and it would be interesting to know whether, apart from the four classes of building, there was also control as to what buildings should be erected. I have always been somewhat puzzled by Ogilby's map of 1677 which shows the whole of the City rebuilt at that particular date, with practically no vacant sites, and would ask whether Mr. Bell has found that map to be correct, or whether it records the allocation of the sites of buildings only. It suggests that by that date London had been thickly rebuilt. Indeed, it shows parts of London already overcrowded at certain places, possibly on the margins of the Great Fire. I feel that at this time we have a great deal we can learn from the precedent of the Great Fire of London, which was a great catastrophe, and was dealt with in a statesmanlike way.

THE PRESIDENT, in putting the vote to the meeting, said they were all very much indebted to Mr. Bell for the care and labour he must have devoted to his research into this matter. They should look forward to his book on the subject with very pleasurable anticipation.

MR. WALTER BELL, after returning thanks for the vote, said : I must not, at this hour, take up your time with a long reply. Dr. Norman, with the very kind remarks which he made concerning myself, raised one or two questions. He spoke particularly about the number of City Companies' Halls the rebuilding of which has been attributed to Wren. So far as what I may call the unscientific history of London is concerned, I think all the City Companies' Halls have been claimed as having been rebuilt by Wren. There was another architect, Edward Jerman, or Jarman, the City Surveyor, who was largely employed by the Livery Companies in building the Halls. No doubt his work was overlooked by Wren, but it was Jerman's work, and Wren has got the credit for it, or for the greater part of it. Wren, of course, was very much engrossed with the designs and construction of his many churches and the Cathedral, and also his

public buildings—he was able to crowd a vast amount into his wonderful working day, but he could not do everything. Dr. Norman also mentioned the fact that a good deal of mediæval work remains in several of the London churches. It was the practice after the Fire, and was provided for in the Rebuilding Act, that the stones of churches not to be rebuilt should be used in the new churches. As a matter of fact, in many cases Wren kept the foundations of the destroyed churches for use in the new buildings, and often walls up to 10 or 20 feet, which he recased, and several of his towers contain or still show the original mediæval masonry. In the tower of St. Mary Aldermanry, you can to-day see the marks of the Great Fire on the lower courses. As to the number of houses built after the Fire that are still standing in the City, I was able to picture to you on the screen several of them, but those I showed must in no sense be regarded as a complete representation—there are many others surviving. I know the house in Mark Lane to which Dr. Norman referred, and I would like to learn what was its date. I have heard divergent views upon it. Some have said it was built before the Great Fire and others have placed it as late as Queen Anne. My own view is that it is a house of about William and Mary. [A speaker : There is one head of Queen Mary and one of King William, and the staircase is mahogany.] That was my own impression, that it was a William and Mary house. The second house, in Cheapside, to which Dr. Norman alluded, is now occupied by Elkington's, the silversmiths, and it was known for many years as the Lord Mayor's House. Tradition says it was built for Sir William Turner, Lord Mayor very shortly after the Fire of London, and undoubtedly in that house many Lord Mayors have held their mayoralty. Another house which was used for the mayoralty was Sir Robert Clayton's, in Old Jewry. About the middle of the eighteenth century the present Mansion House was built, and Sir Crisp Gascoyne was the first Lord Mayor to occupy it. I was very glad to learn, which I did not know, that the fittings and plaster-work from Wren's house (so-called) in Botolph Lane had been saved; I feared that all had gone. The house was much of the same type as that which I showed, No. 34, Great Tower Street. I was particularly interested in the remark which Professor Beresford Pite made, that there being no street architecture at that time, there were no architects. He has put into epigram what seems to represent very closely the actual fact. I believe I am right in saying—that one hesitates to say it in company like this—that town architecture began with amateurs: there were amateurs who built houses in our crowded towns a good stretch of time before there were professional men who were engaged to build them. Some of the most "notorious" architects—shall I say?—such as Lord Grimthorpe, have been amateurs. In the rebuilding of London after the Fire, it is the fact, as Professor Pite suggested, that the houses grew up individually, one at a time.

As the owner of the house, or the owner of the land, found money for the purpose he put his house up, without consideration for the house which was built on the right or the left of it. But the Act of Parliament had obviously realised what was going to take place, and the directions given provided both for the type, or class, of building and for the correct keying of every house. The surveyors were charged to see that the brestsummers were not broken, except where they directed. And when at last the separate houses made continuous streets, we find the sort of street which I illustrated by the  houses in Copthall Avenue, as compared with  houses of all shapes and sizes and heights which prevailed before the Fire. The new City was formal and plain, but, on the whole, I think it was a pretty City. Mr. Davidge asked me to deal with the influence which the Great Fire has had upon the state of things to-day. That I should be delighted to do, but time is too short. I think the most obvious debt we owe to the Great Fire is the reduction of steep hills, and the doing away with many sharp turnings, which were common in the mediæval City. Its effect is also seen in the widening of certain streets, although the general widening and opening out of the City of London did not take place after the Great Fire, but largely in our own time. Mr. Davidge also asked me whether I had found evidence of preferential control in the requisitioning of materials or labour for public buildings. I do not think I have found any, but I can recall one particular instance which may interest him. The Royal harbour works at Sheerness had been started before the Great Fire, and after the Fire they were interrupted, owing to the artificers flocking to London. The King, therefore, gave an order to the Masons' Company and to the Bricklayers' Company to send men to do the work, and there is an item in the accounts of the Masons' Company of £3 15s. "paid to impress men and send them to Sheerness." Evidently it was found expedient to set a press-gang to act, and so the King's work was finished. With regard to the public buildings, such as the Guildhall, Sessions House, and the like, I do not think there was any preferential treatment: the question of supply and demand seems to have covered the whole thing. Within six years of the Fire, the competition between the freemen of London and the "foreigners"—non-freemen who came to London from the country—became very keen. The London freemen gradually threw out of employment the others, until it was complained that the artificers from the country were left stranded on the roads, and were liable in their distress to become thieves and footpads. Ogilby and Morgan's map shows much which could not have been completed by 1677. By this time the dwelling houses in the City and the commercial warehouses had been practically finished. But a number of open church sites broke the continuity of the City; on some the churches were then being built and on others not even the foundations had yet been dug.

REVIEWS.

SHAKESPEAREAN PLAYHOUSES.

Shakespearean Playhouses. By Joseph Quincy Adams, Cornell University, U.S.A. (Houghton Mifflin Co.)

Mr. Adams has given us in a very handy volume a concise history of English theatres from the beginning to the time of the Restoration. The arrangement of the book is excellent. The history of each theatre from its inception through its varied occupation to its end is separately given, and as far as practicable the series is in chronological order.

The earliest playhouses were the courtyards of the old coaching inns. The open yard was spacious, and around it on three sides were one or two storeys of galleries or balconies giving access to the rooms on the upper floors. The stage was erected on barrels or other temporary supports in the open yard, and the general public stood in the "pit," while the galleries filled with benches or chairs were reserved for guests or "the quality" who came to see the play. These inn yards remained the type on which theatres were planned nearly all through the great period, and it may be said that they are the prototype of the theatres of to-day. It is true the rectangular plan gave place to a polygonal or circular arrangement of seats, and this naturally led to a similar plan of the building itself.

In the Elizabethan and Jacobean period under review seventeen theatres were constructed:—

1. The Theatre	...	opened about	1576
2. The Curtain	...	...	1577
3. The First Blackfriars	...	1576 or	1577
4. St. Paul's	...	...	1578
5. Newington Butts	...	before	1580
6. The Rose	...	...	1587
7. The Swan	...	...	1595
8. The Globe	...	...	1598
9. The Fortune	...	...	1600
10. The Second Blackfriars	...	...	1600
11. The Whitefriars	...	...	1605
12. The Red Bull	...	...	1605
13. The Hope	...	...	1613
14. Rosseter's Blackfriars	...	...	1617
15. The Cockpit or Phoenix	...	...	1617
16. Salisbury Court	...	...	1629
17. The Cockpit-in-Court	...	...	1632

It is interesting to observe that the location of most of these theatres was determined by the social conditions of the time. The Corporation of London, the governing body of what was then the whole of London, including its outwork Southwark, had steadily set its face against playhouses and would not allow any to be erected within its jurisdiction. The would-be proprietors had to look elsewhere for sites convenient to their public who lived within the City. The monasteries in and around London dissolved by Henry VIII had passed to the Crown, and their lands were outside the Corporation's jurisdiction. To these the proprietors turned, and there found their homes. "The Theatre" was in Finsbury Field on the former Holywell Priory Estate. "The Curtain" was on part of

the same property, called the Curtain Estate, and only just south of "The Theatre." "The First Blackfriars" was in what had been the buttery of Blackfriars Monastery on the City side of the river; "The Second Blackfriars" (the site of which is now the *Times* printing office) was the former fraterly parlour and hall of the same monastery; "St. Paul's" was in the Cathedral precincts, probably the Choir School; "The Whitefriars" in Bouverie Street was the one time refectory of that monastery; "The Rose," "The Globe" and "The Hope" were on the Bishop of Winchester's estate on the Bankside, Southwark. The link between "the Church and the Stage" is thus a remarkable one. "The Swan," in the adjacent old Paris Garden, was on Crown land. "Newington Butts," on the ancient archery butts, was also outside the City's jurisdiction. To complete the list, "The Fortune" was in Playhouse Yard, Clerkenwell; "The Red Bull" in St. John Street, Clerkenwell; "The Cockpit" was in Cockpit Street, Drury Lane; "Salisbury Court" just to the south of the present square of that name, and last, "The Cockpit-in-Court," designed by Inigo Jones, was in Whitehall Palace.

The men who stand out before all others of the period in promoting and building theatres and organising companies of actors were the Burbages, Henslowe and Edward Alleyn. They were the energisers and the enterprising spirits of the time. Edward Alleyn, great actor as he was, appears to have combined these qualities with his other talents, and not only so, he was a generous friend to whom the impecunious actor constantly turned for help and advice. A letter has been recently discovered from W. Wilson, a hitherto unknown member of Shakespeare's company then playing at "The Fortune," addressed to Alleyn, asking his favour in regard to a present from the company on the occasion of Wilson's marriage, in which he mentions two other members—Dowton and Juby.

The playwrights of the period are, of course, household names, many of world fame—Shakespeare, Beaumont and Fletcher, Massinger, Thomas Heywood, Ben Jonson, Robert Daborne, Tarleton, Nat Field, Middleton, Chapman, Dekkes, Webster and others. Michael Drayton, the poet and dramatist, was the founder of "The Whitefriars" theatre.

Among the talented actors the most famous were Edward Alleyn (the future founder of Dulwich College), the star actor of the Lord Admiral's Company, selected by the Corporation to address King James on his visit to the City, Richard Burbage, William Shakespeare, John Heminges, William Kemp, Thomas Pope, G. Bryan, A. Phillips, Nat Field (originally one of "the Children of the Chapel," afterwards "the Children of the Queen's Revels," said by Keysar to be "the most expert and skilful of actors in England"), William Slye, W. Osteler (originally one of the children of "Blackfriars") and Condell.

Of these men of affairs, playwrights and actors, Henslowe, Shakespeare, Beaumont, Fletcher, Mas-

singer and Alleyn lived on the Bankside at Southwark near the theatres, and doubtless all took part in the better social life of the parish; Henslowe and Alleyn were both Wardens of St. Saviour's (now Southwark Cathedral); Shakespeare's brother Edmond, Fletcher and Massinger are buried there.

In the earlier days the theatres were private speculations, and the financial position of the actors was a precarious one. They received the pennies paid by the people in the pit and "sent the hat round" during the performance, sometimes stopping for this purpose at an exciting part of the play.

The receipts from the audience of the galleries went to the proprietor of the theatre. Such an arrangement, however, was bound to end when theatres became permanent institutions, and in the companies organised by Henslowe, Alleyn, Burbage, Shakespeare and others the principal actors were "sharers," or, as we should say to-day, "shareholders." It is curious to note how fluid were the companies. They were always changing—dissolving, reorganising, merging one into another, or, more accurately speaking, some of one company and some of another joining together under a new appellation—that of The King, The Queen, or of some patron of influence at Court; then perhaps reverting, and so on in endless mutations, all of which are given in clear detail in the book.

The theatres had their excitements outside those of the drama. In 1598 the landlord of "The Theatre," taking advantage of a technical legal slip, intended to appropriate the building which but for this slip the occupying owners had the right to remove, but the Burbages and members of Shakespeare's company were too sharp for him, taking the law into their own hands; and on the night of the 28th December they pulled down the building, carting away the material to build their new house, "The Globe." How they must have enjoyed themselves!

In 1613 the first "Globe" was burnt down during a performance of Shakespeare's *Henry VIII.*, when the wadding of a discharged gun set fire to the thatched roof.

In 1617 "The Cockpit" was wrecked internally by a mob of apprentices almost as soon as it was finished.

In 1620 the first "Fortune" was burnt down.

In 1649 "The Cockpit" and "The Fortune" were internally wrecked, and "Salisbury Court" was pulled down by soldiers. It was reconstructed, but in 1666 was burnt down in the Great Fire of London.

In 1698 "The Cockpit-in-Court" was probably burnt down in the fire at the Palace.

The City authorities were inimical to theatres as such, and they constantly harassed the proprietors in one way or another. When they had no authority of their own they used their influence with the Privy Council to stop plays, succeeding in one case in permanently suppressing the theatre. In 1597 "The Swan" was closed by the Privy Council in consequence of a play which gave offence. In 1608, as a result of

a play at "The Second Blackfriars," which offended the King of France and King James, the career of "the Children of the Chapel" was terminated.

The plague in London constantly interfered with the theatres, which were closed to prevent the spread of infection. Sometimes the companies went for provincial tours, but often great distress arose among actors and workmen.

It has been mentioned that the tradition of the old coaching inns was continued in the new theatres. "The Theatre," "The Curtain," "The Rose," "The Swan," "The Globe," "The Fortune," "The Red Bull" and "The Hope," all had uncovered "pits" in the centre, and in many the stage was uncovered, but the surrounding galleries were roofed in. The first "Fortune" was a square building externally, the others were all either polygonal or circular, and when "The Fortune" was burnt down it was rebuilt on a circular plan.

Nearly all the new theatres were constructed of timber lathed and plastered, but "The Swan" was of flint. They were large buildings. De Witts states that "The Swan" held "in its seats" 3,000 people.

"The Cockpit-in-Court"—the first Theatre Royal—was a stone or brick building on a square plan, octagonal inside. Inigo Jones's original drawing is in Worcester College Library, Oxford. It is refined and masterly. The design of the back of the stage—the Proscenium—was inspired by that of Palladio's Teatro Olimpico at Vicenza.

The theatres in Blackfriars and Whitefriars, constructed as has been noted in the old monastic buildings, were, of course, covered, and this led to an arrangement by which the "covered" theatres were used for winter performances and the Bankside "open" theatres for summer ones by the same companies; thus "The Second Blackfriars" was the winter home and "The Globe" the summer house of Shakespeare's company, under Burbage; and "The Whitefriars" held the same relation to "The Swan" under Henslowe. "The Blackfriars" thus occupied was so great a success that complaint was made by officials and inhabitants of the interference with traffic from "such multitudes of coaches that sometimes all the streets cannot contain them, but they clog up Ludgate Hill also," and the Corporation vainly tried to close the theatre, but the King came to the rescue of the company.

The whole subject is a fascinating one, but the limits of a review do not permit of further detail. It may therefore be appropriate to conclude with a reference to the passing of the great actors who contributed to the glory of the period. Pope died in 1603, A. Phillips in 1605, W. Slye 1608, Osteler in 1614, Shakespeare had left the stage before 1614 and died in 1616, R. Burbage died in 1619, Heminges outlived them all except Field, and in 1623 Heminges and Condell collected and published Shakespeare's plays; Condell died in 1627, Heminges in 1630, N.

Field in 1632. Edward Alleyn retired from the stage probably before 1610, and died in 1626.

EDWIN T. HALL [F.]

CO-OPERATION OF ARCHITECTURE AND BUILDING.

I HAVE read with more interest than satisfaction the discussion on co-operation in building works in the February issue of the Institute JOURNAL, in which there seems to have been a consensus of opinion that, in consequence of the war and the legislation resulting from it, our profession, as a whole, is not only seriously affected, but is in danger of being blotted out of existence, unless indeed some drastic change is made in the constitution of the Institute. The socialistic scheme formulated by Mr. Lanchester is, I fear, too visionary for general application, for it could certainly be adopted in only a very few offices. The suggestion of Professor Beresford Pite, that architecture and operative building should be united and practised under one management, seems much more to the purpose we all have in view, viz., the advancement of architecture, the improvement of building construction, and the protection of the public in all matters relating to the building arts and crafts. But even the Professor stopped short of promulgating a scheme for uniting them. I therefore crave indulgence for the admission in the JOURNAL of a few more words on the subject.

The mere suggestion of unity in the arts and crafts of building carries the mind back to the old Masons' Guilds of mediæval days, where they did practise architecture and operative building as a single business or profession, a unity that developed and constructed the finest architecture the world has ever known. I do not hesitate to reassert this fact, for the evidence in its favour is so strong that I feel none but those with prejudiced minds will in these later days venture to dispute it. Is it not, therefore, possible to reorganise our professional Institute on the basis of those old Guilds?

I do not suggest the adoption of their system in its entirety, for so many changes have taken place in the handicrafts of building since the Middle Ages—such as improvements in the manual tools of the trades; the introduction of machine tools; and the application of steam, gas, electricity, etc., as driving power to those tools—as well as the inventions of manufactured building materials which now take the place of natural unallied wood and stone of former days, together with many other developments in the building trades. We at once realise the importance of taking those changes into consideration in devising a scheme for improving the building arts and crafts.

But of all the changes that have taken place during the last century none has been greater than the evolution of the sciences, for whether in commerce or

in manufactures, in agriculture or in war, science has become a first principle of their development, and so in like manner science must exercise considerable influence in any future advancement of the arts and crafts of our profession; we must indeed devise some means by which art in architecture and the science of the building crafts can be united in such a manner that each will help the other to develop and progress.

To achieve that object it is necessary to provide special instruction for those who are to practise our profession in the future—and I conceive that the very foundation of the knowledge to be imparted must be based on a sound perception of the natural laws of the universe, such as air, light, heat, electricity, etc., the elements of which should be taught in every elementary school; but the application of those laws to good building could, I am persuaded, be best taught at a technical college, with schoolrooms and workshops specially arranged and equipped for the purpose attached thereto. But the students should be not only trained in the college schools and workshops; they should at the same time be provided with the opportunity of seeing building construction in the actual course of execution, so as to fit them as architects and masters to design and superintend the erection of buildings in their future career.

I therefore suggest that, in addition to the college schools and workshops, there should be a builders' yard, either within the college precincts or immediately adjacent thereto, with journeymen's workshops, foremen's offices, storerooms, etc., surrounding it, and a timber and stone yard in the centre, in which to carry on a local building trade, and as time passed on and business increased that branch building businesses should be established in other parts of the country where it may be thought desirable and as good prospects of success presented themselves, just as a few large builders do at the present time and as they were by the old Masons' Guilds in the past.

I suggest that the governing body of the present Royal Institute, with such assistance as they may deem it desirable to obtain, should organise and establish a new Institute to meet the needs of these modern days; and though I venture to promulgate a scheme which I believe would effect that object, I do it with all deference to their better judgment.

The proposed new Institute might be designated "The Royal Institute of Builder Architects," and I suggest that its headquarters should be, not in London, nor in any large town, but in or near a provincial town of moderate size, where land could be acquired and buildings erected more cheaply, where the cost of living and other needs of the students and workmen would be less than in large towns of the Empire, and—what is more important still—where the students and workmen would be freer from the temptations to evil and the serious consequences arising from it, which seem inseparable from large communities.

The business of this new Institute would be of a

comprehensive character, but as the whole affairs of the present R.I.B.A. are managed by the Council, so also could the whole affairs of this Royal Institute of Builder Architects be managed by a Council, assisted, as they would be, by the various Committees elected to preside over and manage the respective departments of the institution ; and provided likewise that each member of the Council and Committees possessed the requisite qualifications for the duties they would be required to perform. Those qualifications would probably be made dependent on the degrees taken by the members in the students' curriculum of the Institute, which degrees I will, by way of illustration, define as follows :—

Master : A subscribing member who has graduated in the finer arts of architecture and in the four arts of operative building into which the students' curriculum may be divided.

Fellow : A subscribing member who has graduated in the finer arts of architecture and in three of the operative arts of the building crafts.

Associate : A subscribing member who has graduated in the four operative arts of building, but not in the finer arts of architecture.

Graduate : Must have passed a preliminary examination in general education, including the natural laws of the universe, before admission to college, and after admission must be articled and pay a premium.

Industrial : A non-subscribing artisan or labourer in the Institute employ, whose qualification for employment might be (after a probationary term) a certificate of good character and of his fitness and ability to execute the kind of work on which he seeks to be employed, which certificate, however, should be cancelled and given up if he leaves the Institute employment within three years from the time of his engagement. His inducement to seek employment under the Institute might be preferential engagement over other workmen, and, after a probationary term, the privilege of using the initials I.R.I.B.A. after his name.

Subscribing members only should be entitled to vote on matters affecting the Institute and its business generally.

I suggest that only "Masters" of the Order should be eligible for the appointments of managers of building establishments at either the headquarters or at the branch establishments, nor should any member be entitled to design an important building for execution without the sanction of the Council.

To carry the scheme a step further, I suggest that subscribing members should be invited to assemble at the Institute periodically—say every six months or, at any rate, at intervals not exceeding one year—to elect the President and Council; to discuss the general business of the Order; to receive reports from the managers of the branch establishments; and, in fact, to transact any other business on which the members were entitled to vote.

The members of the respective Committees of Departments should be selected and appointed by the

Institute Council, and each Committee would, of course, elect its own chairman; but all their business transactions, and all other matters relating to the Institute, would be subject to the approval of the Council, whose decisions should be final and binding on all parties concerned.

There is just one more point to refer to, and that is the degree of the titles of the members of the present R.I.B.A., to which I may point out that, to avoid injustice or dissatisfaction, their titles might be transferred to the new Institute, subject, of course, to those members continuing to pay their annual subscription thereto. For instance, Past-Presidents may be designated Grand Masters, Members of the Council Masters, Fellows could still be Fellows, and Associates remain Associates—all of them of the new Institute.

If such a scheme as above outlined were adopted I am persuaded it would not only re-establish our profession on a sound and honourable basis, but it would be the means, in a comparatively short time, of developing an architecture that would surpass in artistic beauty that of the Middle Ages, and although there might be some prejudices against it to contend with in its early stages (for there always are prejudices against new inventions, however good they may be), the superiority of its architectural design, and the higher quality of the building work of this Institute over that of the ordinary builder would soon be recognised, and the architects and builders of the new Institute would be sought for and engaged to design and erect the most important public and private buildings throughout the country.

W. WATKINS, SEN. [F.]

Lincoln.

REPAIRING ST. PAUL'S.

The following extracts from a signed article by Mr. C. E. Sayer [A.] which appeared under the above heading in *The Manchester Guardian* of 26th February are of interest in connection with Mr. Mervyn Macartney's Paper read at the Institute in November 1907. After a short historical introduction the article continues :

In 1751 Flycroft, Surveyor to the Fabric, reported, attributing the settlements to the rubble core of the piers and walls, and this, the earliest extant report, has been confirmed by recent discoveries. Things grew worse, and pieces of stone fell from time to time into the church, and in 1781 Mylne, then surveyor, was entrusted with the repairs, and the building was closed for eighteen months. Unfortunately, Mylne proceeded to conceal rather than to make good the defects. He cut away the faces of the broken stones and covered them with a veneer two to four inches thick held in place by iron dowels or pins, which in course of time have been destroyed by rust, leaving the veneer hanging precariously to the other masonry, whilst no additional support was given to the structure except by some solid work in the crypt.

It is necessary to bear in mind that, in spite of its Classic dress, the building is essentially Gothic in its construction, with flying buttresses, and massive walls depending chiefly on their weight for stability, and that the scientific novelties introduced by Wren were almost entirely confined to the dome, which is a wonderful example of engineering skill. In the main he had to depend on traditional methods and materials. Masonry is the most conservative of crafts, and Wren's masons were all trained in the Gothic tradition, which by the use of small stones and thick joints seems to have aimed at, and certainly attained, great flexibility in buildings. It was the attempt to graft on to this method the large facing stones and thin joints of the Classic manner that was the cause of the trouble.

The facing of Portland stone with joints $\frac{1}{4}$ inch thick has behind it a core of small rubble of Kentish rag, chalk, and five or six other kinds of stone, probably taken from the ruins of the old Cathedral, set with very thick joints of rather inferior mortar. It is evident that when the weight of nearly 5,000 tons on each pier was applied the mortar, being the softest part of the structure, would be compressed, and the core with four or five thick joints to one thin one of the facing would settle most, thus throwing an enormous strain on the Portland stone. This splendid stone stood the strain on the whole in a marvellous manner, but many stones were crushed and shivered, and the loud reports and falling pieces which would result must have been very alarming. These facts are quite enough to account for the subsidences which have taken place, and there seems to be no evidence of any failure of the foundations. Under these circumstances the architect to the Dean and Chapter advised a thorough repair, beginning with the worst pier—that of the west side of the south transept arch.

During the last three years all the broken stones of this pier have been entirely cut away and replaced by carefully selected Portland stone, and the core has been consolidated as far as possible by grouting. The work has now reached the springing of the great arches, some of the lower stones of which it will be necessary to replace, and then the first stage will be complete.

The work has been much more extensive and costly than was expected, and must have given many anxious hours to those responsible; it is altogether an admirable job, and reflects great credit on all concerned. As an instance of the thoroughness with which the problem has been treated it may be mentioned that at every critical point where any fresh movement in the building would be likely to show scientifically constructed gun-metal tell-tales, capable of being gauged and levelled to one-thousandth part of an inch, have been fixed. These are most carefully tested every week, and it is satisfactory to know that no measurable movement has been registered anywhere during the three years they have been in use.

CORRESPONDENCE.

American Timbers.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I have read with interest the article in your January and following edition by Mr. John R. Walker, United States Trade Commissioner, and the remarks made by members of your Institute. It is certainly of the utmost importance to bring before architects, engineers, and other users of timber, complete information regarding the future of supplies, and especially those from our Allies and our Colonies. American supplies deserve the most careful attention. The proposal to have samples shown and information published regarding all available American timbers is undoubtedly a good one, and in this connection it would be possible for me to assist, as I think I should be able to produce specimens of sufficient dimensions and all the necessary information to enable enquirers to satisfy themselves regarding the qualities of the various timbers and the sizes in which they are to be obtained. It is certain that the demand after the war will be so general and on such a large scale, and the cost of transport still so heavy, that it will become necessary for us to accustom ourselves to entirely new conditions.

Mr. Walker has speculated upon the causes which in the past, under pre-war conditions, have resulted in the very limited uses of American supplies. He advances as his prominent reasons:—

(1) The manufacture and specifications which have been customary for the American lumbermen to provide—that is, the lengths, widths, and especially the thicknesses.

(2) That the different varieties are not sufficiently well known to those who have the ordering of material.

(3) That the thicknesses are bare or, as it is sometimes called, "shy."

In regard to (1). It is true excepting as regards Oregon Pine or Douglas Fir (*Pseudotsuga Douglassii*) that the American specifications customarily provided are very different from those which are ordinarily used in this country. In timbering work the joists, rafters, etc., for any large building necessitate the supply of perhaps thousands of pieces all of one or two lengths, or in any case only a few variable lengths; and one or two widths, or in any case only a few widths. The American custom of sawing random widths is, and still will remain, a disadvantage so far as most of the varieties of American timber are concerned. Supplies of Oregon Pine have generally been obtainable in sufficient quantities of any lengths and widths which might be required, and cannot be included in the same category. It does not seem possible that the regulation specifications adopted by American lumbermen, which run from 4 to 16 feet and in random widths of from 4 inches to 18 inches, including all widths—*i.e.*, increase of an eighth of an inch at a time—can ever be very conveniently used in the United Kingdom build-

ing trade. The question is, whether it will be possible to persuade American lumbermen to adopt specifications which would be more suitable for our requirements. These disadvantages, however, are only partial. To realise the fundamental differences between American uses and our own, more than one visit to America and a study of their conditions are necessary. For a number of years we have been accustomed to use solid timber in solid work; built up work and the adoption of other material for strength, with the use of timber as a decorative article—or as Americans term it "trim"—has only been adopted here during the last few years. The climatic conditions in America are quite different from those here. The extreme and variable dry and humid heat which is experienced there, and the extraordinary sudden variations of both, are conditions unknown in this country. Similarly, the continuous trying damp atmosphere of this country is unknown in America, and the result is that built up wood work in the United Kingdom has not on the whole been a success; and undoubtedly the use of solid woods as adopted here has not been successful in America. As illustrating this, works of art in furniture, in Sheraton or Adam style, which have remained in perfectly sound condition in this country for perhaps 150 years or more, when exported to America have fallen to pieces and the veneer and solid work separated. On the other hand, the ply construction made use of in America for furniture, trimming, pianos, etc., is found to be unreliable and not to stand well in this damp climate.

In regard to (2). I think the different varieties and qualities of timbers available from America are certainly very generally known. The use of Oregon Pine (Douglas Fir), which in other respects provides ample quantities in suitable specifications, has been very much restricted, notwithstanding the fact that it is generally more free from knots and sap than Baltic Fir, because it has never been considered, and probably is not so durable, and on account of the fact that was mentioned by one of the gentlemen at the Meeting, the grain will rise after preparation, resulting in a ridgey surface which shows even under paint or varnish. For many years past Louisiana Cypress (*Taxodium distichum*) has been in request by a few who value the extraordinary qualities of durability which this wood possesses, but supplies have been difficult to obtain in sufficient quantities and of sufficient dimensions, and generally the much higher cost has decided the question in favour of Baltic Fir.

In regard to (3). I do not think Mr. Walker is correct in his impression that the American thicknesses are bare or "shy," as he has explained. At any rate no complaints have been made on this account, and on the whole the thicknesses to which American timber is cut are quite as stout as the same thicknesses obtained from other countries.

It will therefore be seen that we must look for other causes to explain the limited use to which American timbers have been put in the United Kingdom for

building purposes referred to by Mr. Walker, and there is no doubt that the one feature which has entirely ruled the situation has been the question of cost. Unlimited supplies have been available from the Baltic and elsewhere which could be put on the market at a cost with which the American has been unable to compete; even Oregon Pine, which has been provided generally at prices which have been hardly sufficient to encourage the trade, has to be included in the same category. Radical changes are now likely to occur, and it may confidently be expected in the future that American supplies can be provided on a more equal footing as regards cost.

All business and professional men who are interested in the uses of wood should do everything possible to cultivate and encourage American trade, and it would afford me pleasure to be allowed to assist in any direction in which my services would be helpful.—Yours faithfully,

ALEXANDER HOWARD.

38 Trinity Square, E.C.3.

Mr. Henderson's "Byzantine Splendour."

To the Editor, JOURNAL R.I.B.A.,—

SIR,—The Institute is to be congratulated on having acquired the loan of Mr. Arthur E. Henderson's latest and greatest scholarly painting. I was re-studying it a few days ago and found fresh interests in the subjects, which are certainly based on known examples re-designed to suit his general scheme. By this means he has avoided making it a museum of architectural examples with no relation to each other.

Take the great white column—one can see a pillar from the Hellenic Temple of Diana at Ephesus, with its carved lowest drum and sculptured plinth, but it only forms a glorified part of the picturesque little group of columns at the south-west angle of St. Mark's at Venice, and the twist given to the flutings must come from those delicate columns in the façade of San Lorenzo in Rome. In his main capital, which is of basket form, on its face, instead of the general fleur-de-lis, Mr. Henderson has placed a most delightful human butterfly, reminiscent of Wedgwood ware. His handling of the colour is also good, all leading up to the grand and noble dome. The grouping of his brilliantly coloured figures as a base to his columns and piers is masterly, and the continuity of the colours might almost be compared to the roots of a forest.

A picture such as this requires a much longer time to study and memorise than any chapter in a history book. It is such a picture as the Chinese delight in (a letter I have seen from a business man in China states: "I have seen native connoisseurs seated before pictures, on the fascination of which they have feasted for hours on end"). It would be a great kindness if Mr. Henderson would write a full description of the work stating the subjects he has utilised and his artistic alterations.

I would ask all who have not seen this painting, which has previously been on exhibition at the Galleries of the Royal Society of British Artists, to go to the Institute and study it well. I know of no other picture like it; although it is somewhat lacking in the usual pictorial obscurity and rendering, and the figures are rather sculpturesque, it is nevertheless worthy to be placed in a gallery where the public might be taught something about the beauties of architecture.

Our picture galleries are lamentably deficient in good paintings of great architectural subjects. I do not refer to pictorial or exact renderings of existing examples, but to such masters as Claude and Turner excelled in, in their day. Our modern artists such as Leighton and Alma Tadema had no professional architectural training; their rendering of the classic Greek is magnificent, yet neither ever attempted such an appallingly difficult task as Mr. Henderson imposed upon himself, and at best their architecture was only used as a background to their splendid painting of the human figure.

It would be a lamentable loss to both the architectural world and picture lovers if this work were to fall into the possession of a private individual, and I would suggest that the right place is at the Tate Gallery or the City Guildhall Art Gallery.

Yours faithfully,
ERNEST L. HAMPSHIRE [A.]

LEGAL.

The Model Bye-laws and the Public Health Acts Amendment Act 1907, Section 23.

On the 3rd May the Court of Appeal (Lord Justice Pickford, Lord Justice Warrington, and Lord Justice Scrutton) delivered considered judgments dismissing with costs an appeal from the decision of Mr. Justice Bailhache in the case of *The Governors of Repton School v. Repton Rural District Council*. The case arose out of building alterations, including an addition to the house of a projection three stories high, with a room on each floor, in one of the School buildings (Mr. W. A. Forsyth [F.], architect). The question was whether one of the Local Government Board Model Bye-laws was valid, and Mr. Justice Bailhache held that it had become unworkable and was void. The facts of the case and Mr. Justice Bailhache's judgment are reported in the JOURNAL for November, 1917, pp. 14-15, and as the decision was upheld for the same reasons, it is unnecessary to go over the ground again and report the proceedings in the Court of Appeal. These are fully recorded in *The Times* for the 4th May, and in *The Builder* of the 10th. As Lord Justice Pickford says in his judgment, the case is important because it affects a great number of bye-laws throughout the country. The bye-law in question was No. 12 of the Model Bye-laws [JOURNAL, Nov. 16, p. 14], and seeing that Section 23 (d) of the Public Health Acts Amendment Act, 1907, has so greatly extended the definition of a new building, the Court held that the Bye-law as applied to air space at the rear of the additions proposed to this building was so unreasonable as to be invalid.

CHRONICLE.

Building after the War.

The Council of the Institute having been invited by the Building Materials Supply Committee of the Ministry of Reconstruction to appoint representatives to express the views of the Institute on questions contained in a reference to the Committee respecting the supply of materials, &c., after the war, the President, Mr. Paul Waterhouse, Vice-President, and Mr. John W. Simpson, Past Vice-President, were appointed. The representatives were requested to furnish the Committee in advance with a précis of the evidence proposed to be submitted, and this was done in the following letter addressed to the Secretary of the Committee:

7th May 1918.

SIR,—With reference to your letter of the 16th March addressed to the Secretary,

We beg to inform you that we have been appointed by the Council of the Royal Institute of British Architects to represent to your Committee their views as to clauses 3 and 4 of the Reference from the Ministry of Reconstruction. In accordance, therefore, with your request, we have now the honour to append a summary of the views we are instructed to entrust to your Committee upon the subjects covered by the clauses referred to.

For greater clearness we have sub-divided the paragraphs of the Reference under headings as follows :

Paragraph 3 :

- (A) "In the event of the supply of material or labour being insufficient to fulfil the total building demand,"
- (B) "to consider the principles and method by which the priority of various claims should be settled";
- (C) "and to report what steps are necessary to ensure that the manufacture of the materials, so far as they are at present inadequate, shall be extended in time to secure sufficient quantities for use when required on the cessation of hostilities";
- (D) "and to recommend what steps should be taken during the war to facilitate a prompt commencement of building work at that time."

Paragraph 4 :

- (E) "to consider and report upon any conditions affecting the building trades which tend to cause unduly high prices";
- (F) "and to make recommendations in regard to any measure of control which it may be desirable to exercise over the purchase, production, transport, or distribution of material."

SUMMARY OF VIEWS TO BE SUBMITTED.

Paragraph 3 :

(A) In view of the long period during which building operations other than those directed to the furtherance of war have been practically suspended, the dislocation of manufactures and shipping, and the shortage of labour, we think it may be assumed as certain that the supply of materials will be insufficient to meet all demands at the termination of the war.

(B) One claim only should be considered as entitled to priority—viz., that of works to be executed by, or on behalf of, the Government for immediately urgent national needs. All other claims should be regarded as equal; in other words, markets should be left free and unfettered by restrictions, so that production may be

stimulated to its utmost, and prices thereby reduced to a normal level at the earliest possible moment.

(C) An increased output of material during the war depends almost wholly upon the amount of labour available for the purpose. To deal with this question would involve consideration of the relative allocation of manpower to military and civil necessities; and it does not appear to us that we can usefully offer suggestions upon such a matter.

(D) For the purpose of the urgent Government works referred to under heading (B), we recommend that material should be accumulated and secured in advance, by immediate purchase of available stocks, by such earmarking as may be practicable both at home and abroad, and by expediting present production so far as that may be done without affecting the conduct of the war.

For all other purposes the building trade should be encouraged to proceed with the organisation on a secure basis of the immense future operations which it will be called upon to undertake. To this end an authoritative assurance should be given at once that the control of Government departments, whether as regards the supply of material or the erection of buildings, will cease at the termination of hostilities. Without such an assurance all the plans of private enterprise can be but tentative and uncertain. It is necessary that security should be assured for their projects before these can be usefully formulated.

Paragraph 4:

(E) The chief cause of unduly high prices is the present system of payment for time occupied instead of for results obtained. This system tends both to restrict output and to diminish the purchasing value of wages paid. There should be no limit to the income of a workman except that of his capacity to earn it.

(F) We believe that the abolition of control is the true, and only sound, method whereby markets in material and the building industry generally can be restored to healthy conditions. We endorse the opinion of Lord Inchcape (*Times*, 22nd April last), that "the less Government officials or quasi-Government officials are permitted to interfere with trade the better will it be for the country and for its financial stability. . . . There is an idea in some quarters that the Government, through officials, could with advantage to the community carry on the business of the country. No more fatal error could be conceived. No greater delusion ever took possession of the human mind."

"The day of peace," writes one of the great London building contractors, "should also be the day of liberation for British industry from the fetters to which it has patriotically submitted during the time of national danger." We entirely agree,

and have the honour to be, Sir,

Your obedient servants,

HENRY T. HARE, President R.I.B.A.

PAUL WATERHOUSE, Vice-President R.I.B.A.

JOHN W. SIMPSON, Past Vice-President R.I.B.A.

The Annual General Meeting.

The Annual General Meeting was duly held on Monday, 6th May, the President, Mr. Henry T. Hare, presiding. The Report having been formally presented, the President moved its adoption, and the Hon. Secretary, Mr. E. Guy Dawber, seconded the motion.

Mr. WM. WOODWARD [F.] recalled that this was the twenty-second anniversary of his passing in review the Report of the Council. Last year he had expressed the hope that when the next anniversary arrived peace would have been restored. Peace, however, was not with us yet. He believed—and was sure he was expressing the views of the nation—that when peace was proclaimed it would be peace upon our terms, and that we should have under our heels the vilest reptiles that had ever been permitted to encumber the earth. The Institute's normal losses by death during the past year numbered twenty-nine. They all regretted the loss of these members; but there were two or three among them who had special claims upon their remembrance. Howard Chatfeild Clarke was an architect and surveyor about whom they could say that, whether they were with him or against him in actions-at-law, they knew that in him they had all that was best and fair in professional etiquette and ability. Then there was Gerald Horsley—a more good-natured, a more generous-hearted or more thorough English gentleman they could never hope to meet. Walter Spars and Francis Bond were also losses which they would never cease to deplore. They had, too, on that occasion to express their deeply sorrowing regret at the further heavy list of members fallen in the war. That a total of 1,248 members of the Institute should have joined the Forces was, he thought, highly creditable to the profession. Some of them, he was happy to find, were mentioned in the Report for conspicuous bravery and distinguished service in the field. Many members had lost relatives near and dear to them. To these we extended our deepest sympathy in their bereavement. Everyone would agree that the Royal Gold Medal had been most worthily awarded this year to Mr. Ernest Newton, their Past-President. As regarded the Informal Conferences, he had read the reports of these, and might express the fervent hope that something would come of them; but he was inclined to doubt it. Another reference in the Report was to the housing of the working classes and the Government housing schemes. In his opinion much of what had been said with regard to this matter and with regard to town planning was premature. One should provide for the future, but no one knew what the conditions would be at the end of the war, when men and women now engaged in work connected with the war had to seek other occupations. Probably thousands would never return to their pre-war avocations. The idea, therefore, of the Government providing money for houses for the working classes without knowing what would be their wants was altogether premature. It might be that nothing like the number of houses would be required that the Government thought, and therefore nothing like the amount of money which the Government proposed to allocate to these works would be wanted. To his mind, such sums ought never to be allocated for this purpose, and for the reason that the money would ultimately come out of the pockets of those who paid heavy taxes for the provision of dwellings for those who ought to, but did not, pay taxes. He was pleased to see on page 125 that architects had been appointed to positions in various Departments of the Government. He did not know any of these gentlemen, but bearing in mind the millions of money which had been squandered by the present Government he hoped they were being properly paid for their services. As regards the National War Museum he was pleased to find that the Council had recommended an open competition for the building. That was the right thing to do. But his own personal view was that it was an altogether wrong idea to spend millions of money to commemorate the horrors of the most hellish war that had ever been perpetrated throughout the history of the world. If anything of the kind was desired there was the United Service Institution in Whitehall, the adjuncts of the Tower of London, and South Kensington, to house the various things required for the Museum. Touching finance, the figures showed that in

1913 there was a surplus of income over expenditure of £1,302, and that, notwithstanding the war, they had in 1918 £241 surplus of income over expenditure. That surplus was very satisfactory and was no doubt due to the efforts of the Staff to keep down all that could in the way of expenditure. Coming to the Reports of the Standing Committees, in the Art Committee's Report there was a reference to the Church of St. Olave's, Southwark, to which he would like to refer. The Institute had, in days gone by, intervened many times for the preservation of structures of interest to lovers of architecture and archeology. St. Olave's Church was, he hoped, a building which would be preserved. Standing upon London Bridge and looking across the river one could see what was, to his mind, a very beautiful square tower wedged in between large blocks of warehouses. That was the tower of the Church of St. Olave's. Towards the river was the burial ground with some tombstones, and a wall which, at the present moment, intervened between the view of the Thames and the burial ground. The removal of that wall and the taking in of the landing stage would provide an excellent open space, which was greatly wanted in that particular locality. He trusted that the efforts which the Institute had made in trying to preserve St. Olave's would be successful and that we should see not only the church preserved, but the open space in front taken down to the river, where people in that locality would be able to enjoy, for many years to come, a pleasant view of the river and comfortable seating accommodation. The Librarian's Report was satisfactory. It showed that 2,032 readers attended the Library this year, as against 2,219 last. Bearing in mind the present position of affairs those figures were very commendable to those who were carrying on their studies. They would all agree that Mr. Dircks was entitled to their best thanks for his indefatigable attention to those who took advantage of their magnificent Library. The Report of the Architects' War Committee showed that the Reorganisation Committee had mapped out for themselves a programme which would meet with the concurrence of every member of the Institute and of the profession. If this Committee would prosecute their excellent intentions they will earn the gratitude of all and not least of our brave young fellows who are fighting in France and Flanders and the various other battle-fronts. Finally he would refer to a very important matter. In that room, on January 7th last, the Institute passed the following resolution: "That in view of the important interests involved, this Institute should, in conjunction with other bodies, take steps to represent to the Government the serious objections to the continuance, after the declaration of peace, of the present war restrictions on building." That resolution was practically unanimously passed on January 7th, yet it was only on April 3rd that a letter was addressed from the Institute communicating that resolution to the Prime Minister. He would like to ask why that long interval was allowed to elapse before the resolution was sent. It was reported in the JOURNAL that a formal acknowledgment had been received. That sort of communication was always followed by an acknowledgment, and, so far as his experience went with His Majesty's Government, that was all they were likely to receive. His view was that if the Institute did not press to its full extent this resolution before the Government they would wake up one morning and find a new Government Department, with something like three or four thousand officials, whose business it was to tell them what buildings they might, and what buildings they might not, erect after the war. He hoped that the Government would be pressed for a definite reply to this important resolution.

In conclusion, referring to the work of the Standing Committees, Mr. Woodward said: Many of us have served on Committees, and those who have done so will agree with me what an enormous amount of time and trouble have been devoted to the service of this Institute. And although

I am only on one Committee now, the Practice Committee, and, being on that Committee, am excluding it from the commendation I ask the meeting to pass—though if I were not on that Committee I would ask the meeting to include it in the commendation—I do say, and I do not think we have ever noted it before, at all events at these annual meetings, that the thanks of the Institute and of the profession are due to our President, to the Council, and to those who have been serving on various Committees. And I sincerely hope that the day is not far distant when we shall have back with us Mr. MacAlister and those other members of the Staff who are away from us to-day, and that the Institute this time next year will be able to meet with peace before us, with no overdraft at the bank, with an accelerated number of members, and our dear young fellows back with us, whom we shall acclaim with ever-loving sympathy and let them find that in the interval during which they have been away we have not forgotten them, but have done our very best to provide for them when they come back.

The PRESIDENT said he was afraid he was to some extent responsible for the delay in communicating the resolution to the Government. As a matter of fact they had at the time a Conference of Architects, Builders, and Surveyors sitting at the Institute with the object of arranging a deputation to the Government upon, amongst other matters, the very subject referred to in the Institute resolution. The resolution was kept back in order that it might be dealt with by the deputation which he had reason to hope the Government would receive very shortly. Eventually, however, the resolution was sent through the post in the way reported, because the mover of the resolution insisted on its being sent without further delay. With regard to what Mr. Woodward said about pressing the matter on the Government, he might say that three representatives of the Institute were giving evidence at the Ministry of Reconstruction on that very point, and he could assure members that they would not lose the opportunity of pressing the views of the Institute as expressed in the resolution.

Mr. PITT-RIVETT W. FRASER [F.], referring to the present constitution of the Council, said he was informed that there were only three members of the Associate class on the Council available. This meant that the representation of the Associates, whose numbers were twice those of the Fellows, was one to 544, as against one to 38 of the representation of the Fellows on the Council. He thought that was a very improper state of affairs. They ought to do rather more for the younger members of the Institute during these abnormal times than they had done before. Fellows hardly needed representation; they had made their position, and could look well after themselves, but Associates wanted guiding and helping at all points, and he did not think that the Council were doing that by tacitly agreeing to a ratio of one to 544. On another point he thought Mr. Woodward was inadequately informed. He said the only acknowledgment the Government had made to the representation as to restrictions after the war was a formal one. Mr. Woodward had evidently not had a document which he (Mr. Fraser) had received, headed "New Building Works: Ministry of Reconstruction," the most grotesque document which had ever passed through his hands. It had been severely commented on by the building papers, and rightly so. There was a most slashing article on it in *The Builder*, and he endorsed every word of it. The covering letter stated that this document had gone out under the aegis of the Royal Institute, and he asked if that were the case, and for some explanation as to this remarkable paper which had caused so much Homeric laughter in every department of the building world.

The PRESIDENT, replying to some of the points raised, referred to Mr. Woodward's question as to the payment of those architects who had been taken on in Government

Discussion. It was a point the Council had in view, what useful could be done, he could assure the meeting that it would be done. As to the National War Museum, there would be a good deal of sympathy with Mr. Woodward's views. The idea of the promoters, however, was that the National War Museum, if it materialised, should be not to commemorate the most horrible war which had ever taken place, but to commemorate what they hoped would be the last war, and to show to future generations what a terrible thing this war had been. Mr. Fraser had criticised very severely the form issued by the Ministry of Reconstruction. He did not say, however, what exactly were the points to which he took objection. He took objection probably to one particular question, the one which he said was objected to by *The Builder*, as it seemed to foreshadow a system of priority. That was an entirely mistaken view of the case: there was no idea of priority in that question at all. The two points in the reference to that Committee by the Government which that form dealt with had nothing to do with the question of priority of any kind or sort. That was being dealt with entirely separately and apart. As he had said in answering Mr. Woodward, three representatives of the Institute were giving evidence before the Ministry on this question of priority, and the evidence they were proposing to give was such as he had not the least doubt would meet with the approval of those who supported the resolution passed by the Institute in January. With regard to the question of the representation of Associates on the Council, which Mr. Fraser mentioned, it must be remembered that most of the Fellows of the Institute had been Associates, and he was sure that all Fellows might be taken as representing the interests of Associates as well as those of Fellows. It was not quite fair to say that Associates were only represented by Associates; the interests of Associates and the interests of Fellows were, as far as he knew, practically identical. He failed to see where the difference was; it was the general interest of the architectural profession, and this was quite identical in the two classes. The only point was that the Associates were younger men than the Fellows, and it would not be right that they should have the same proportion of representation as the Fellows have. Under the New Charter the representation was to be slightly increased.

Cambridge University and Professor Beresford Pite.

Professor Beresford Pite [F.] has had conferred upon him by the University of Cambridge the degree of Master of Arts *honoris causa*. It is interesting to record the speech delivered on the occasion by the Public Orator, Sir John Sandys:—

Vetere usi proverbio dicimus:—"faber est quisque fortunae suae." Hic autem architecturæ, quæ nascitur e fabrica et ratiocinatione, studio ex iuventute prima deditus, patris et fratris natu maioris in vestigis in perpetuum feliciter progrediens, et locum sumnum inter collegas suos adeptus, vinculis artissimis Academiam nostram cum Londiniensibus suis coniunxit. Quid dieam de pæselecionibus illis, in quibus urbium condendarum historiam et rationem universam primo ex ævo per litterarum renascentium saeculum usque ad tempora nostra eloquentia tanta prospere prosecutus est? Nostra certe in Academia studiorum nostrorum velut in orbe universo etiam architecturam, viri huiusce cum auxilio, feliciter collocatam esse vehementer gaudemus; scientiam tam utilem, tam pulchram, hodie libenter salutamus; Vitruvii denique verba verissima esse, non minus libenter confitemur:—"Architecti est scientia pluribus disciplinis et variis eruditioribus ornata, cuius iudicio probantur omnia quæ ab oeteris artibus perficiuntur opera."*

Duco ad vos architectum eximium, virum de Academia optime meritum, ARTHURUM BERESFORD PIT.

* Vitruvius, i. 1.

MINUTES.

At the Eighty-fourth Annual General Meeting, held Monday, 6th May, 1918, at 5.30 p.m.—Present: Mr. Henry T. Hare, President, in the chair; 29 Fellows (including 10 members of the Council), 6 Associates, 2 Licentiates, and 2 Hon. Associates—the Minutes of the previous General Meeting were taken as read and signed as correct.

The Hon. Secretary announced the death in action of 2nd Lieut. Henry William Mann, Royal Field Artillery, Associate, elected 1914, and it was resolved that the Institute's deepest regret for his loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to his nearest relatives.

A similar message of sympathy was ordered to be sent to Mr. Wm. A. Pite [F.], whose son, 2nd Lieut. Horace Victor Walter Pite, Hampshire Regiment [Probationer], was reported missing in Palestine.

The decease was also announced of Khan Bahadur Muncherjee Cowasjee Murzban [Fellow].

The names of members nominated for election were announced [see "Notices" below].

The Annual Report for the official year 1917-18 was presented and its adoption formally moved by the President.

The Hon. Secretary having seconded the motion, the Report was discussed, and the President having answered points raised, the motion was put to the vote and carried unanimously.

On the motion of the President a vote of thanks was passed by acclamation to Mr. Henry A. Saul [F.] and Mr. H. S. East [A.] for their services as Hon. Auditors.

The proceedings terminated at 6.10 p.m.

NOTICES.

A GENERAL MEETING (BUSINESS) will be held MONDAY, 10TH JUNE, 1918, at 5.30 p.m., for the following purposes:—

To read the Minutes of the Annual General Meeting held Monday, 6th May; formally to admit members attending for the first time since their election;

To proceed with the election of the following candidates for membership:—

AS FELLOW.

HOPE: ARTHUR JOHN [Licentiate, passed the Qualifying Examination for membership], of 19 Silverwell Street, Bolton; and "Wendenham," Atherton, near Manchester.—*Proposed* by John B. Gass, Paul Ogden, Isaac Taylor.

AS HON. ASSOCIATE.

WEST: REV. GEORGE HERBERT, D.D. [Associate 1871-1917], of Selsley Vicarage, near Stroud, Glos.—*Proposed* by the Council.

MR. HERBERT W. WILLS [F.] to move the following Resolution:—

That this Meeting express disapprobation of the action of the Council in permitting a form to go out with their sanction in which the following clause occurs: "Reasons (if any) for which you consider it to the National advantage that the building should be erected without delay," and request the Council to inform the Ministry of Reconstruction that the R.I.B.A. is opposed to any form of war control of building operations being exercised after the declaration of peace.



NATIONAL HOUSING AND NATIONAL LIFE.

Discussion at the Twelfth Informal Conference, held at the Royal Institute of British Architects, 13th March 1918.

Mr. W. R. DAVIDGE [A.] in the Chair.

Professor S. D. ADSHEAD, M.A. [F.]: Probably it would be well if, before opening this discussion on "National Housing and National Life," I were to preface my remarks with a few words as to the modern use of the term "Housing." Used in its modern sense "Housing" does not mean "house-building," and although in all probability at least one half of the time and energy of those of us who are members of the architectural profession is devoted to the building of houses, as any inspection of the Architectural Room at the Royal Academy will show, at the same time it is doubtful if one-hundredth part of our professional energy has been expended on "Housing." The term "Housing," as used to-day, means "the providing of living accommodation for the working classes," and when we have it on reliable authority that over 90 per cent. of the plans for working-class houses submitted to Local Authorities for their approval have not been prepared by architects, I think I am justified in asserting that the interest of our profession in this class of work has been, to say the least, negligible. This is a very serious statement to have to make, and one that is surely deserving of our closest attention.

The subject under discussion, National Housing and National Life, suggests at the outset an entirely new aspect of the position; let us therefore consider it from two points of view: (1) The interest of the general public in housing, and (2) the responsibility of the architect in regard thereto. That there exists at the moment a popular interest in housing amounting almost to an obsession on the part of the nation no one will dispute, and it is an interest which has the support of every phase of social and political opinion; indeed, so important has the question become that it is now recognised that the minimum accommodation and rent of a working man's house are bound to become factors of first importance in national standard values upon which will be built any new system of national finance. In effect, it means that the

minimum wage will be regulated, more than by any other factor, by the rent of the house; and the rent, be it economic or otherwise, must be such as will secure the minimum accommodation of a living room and three bedrooms.

It is a well-recognised fact in economics that rents are not subject to the same fluctuations as are the prices of consumable articles like tea, sugar and bread. Nor are they subject to the same conditions of supply and demand. A rise in the price of building materials and in the cost of labour does not produce a corresponding rise in rent. It simply discourages building, and people crowd more tightly into houses already built. Crowding at the present moment is abnormal, and the cost of building is extraordinarily high, and yet if 500,000 new houses were built under the present conditions, or anything like that number, and if economic rents were to be fixed accordingly, they would not all be occupied. A big proportion of the working classes would continue to live in crowded houses that were let at a much lower rent than the new houses, and would prefer to spend their increased wages in another way; hence the need for a national housing subsidy.

It may be considered by some that, in order to enable the working man to pay an economic rent for the new houses that it is proposed to erect at exceptional cost, the case would be met more directly by raising wages correspondingly. This may be so ultimately, but at the outset it would mean, as I have endeavoured to show, that overcrowding would continue, and the extra wage would continue to flow into the pocket of the owner of the older property.

But this question of rent is not a matter of primary importance to us architects, except as indicating that the new houses that are to be built will not entirely depend in the amount of their accommodation upon the ordinary laws of demand and supply. They will be regulated by the accepted national principle that a house with less accommodation

than four rooms is not considered satisfactory where there is any likelihood of its being occupied by a family. To-day there is a universally recognised appreciation of the influence of the house and its surroundings and associations on the lives of the people generally. The house must have an interest which the tenant can feel is his own. The standard repeat and the bye-law street have been condemned and are for ever doomed. This opens out to us the panorama of an entirely new world and affords opportunities for the architect which his imagination never before conceived.

Housing schemes must be laid out on town-planning lines; they must be placed as far as is possible without the confines of the city. They must be thought of not as spaces covered with packing-cases but as a collection of homes associated with one another in sharing the benefits of public buildings and public amenities. They must have gardens, interesting outlooks both back and front, and all the considered requirements of a complete community. No doubt some schemes will be urban and built within the city, but they will be laid out on quite new and interesting lines. I think that our slum areas will be gradually cleared and the inmates of the worst of them accommodated in well-controlled flats. We have yet a type of town building to erect which shall consist of a huge quadrangle of flats arranged around a square laid out with cobbles or gravel and decorated with flowers, and where the communal kitchen, the common washhouse, central heating and central lighting, and all the so-much-discussed advantages of communal and common sharing could be tried.

Having now sketched out what is to be, let me now come to my second point—viz., the qualifications of the architect to accept the responsibility of carrying out this comparatively new branch of his work. I mention the word "qualifications" in this connection because I wish to make it particularly clear that if architects are to undertake this kind of work—though they as a profession may not realise it—they have a great deal to learn about town planning, they have a great deal to learn about a modern system of housing, and they have a great deal to learn both of a practical and common sense nature that is at the moment much better understood by the engineer and the surveyor. In my opinion, the surveyor and engineer have, since the passing of the Town Planning Act, studied the subject in all its bearings, both much more seriously and much more generally than have the architects, and this not only in its immediate relation to the width and construction of streets but also with the wider view which we architects associate with architectural effect. I say this, because I feel that our profession must bestir itself if it is to qualify itself to undertake the great work that undoubtedly lies ahead.

Let me make myself quite clear, and let me say that the housing scheme of the future will depend for its success upon an entirely different set of interests

from those that have obtained in the past. It will not be the interest that we have been wont to associate with the picturesque village of the past, those humble records of a rural history spread over long and restful periods of slow change in architectural style, in the different use of materials and in the weathering of brick and stone. The new schemes cannot depend upon any interests like these. They were built under totally different conditions from those obtaining to-day; their builders were country carpenters and their workmen real craftsmen, or if in Georgian days, when contracting became common, they worked under some inborn architectural influence, were not entirely absorbed in pocketing discounts and juggling with advances, and were quite simple men.

Nor again will the cottage of the future be built by the speculative gentlemen purely as a commercial enterprise, as have practically all the workmen's houses erected since the middle of last century. No, the housing scheme of the future will be laid out on town-planning lines, and the commercial aspect will not loom largest in the field; and whilst nowhere will there be standard streets it goes without saying that the cottages themselves will be built to standardised plans. But both cottage and street will now for the first time be considered conjointly, and in the grouping and composition that will follow will lie the architect's opportunity.

The recent cottage competition has proved a valuable and instructive lesson to the architectural profession. A general inspection of the designs submitted shows very clearly that as a profession we have not yet realised that the cottage of the future cannot be the cottage of the past, the former being necessarily a unit in a composition, the latter having an individual entity.

I sincerely hope that cottage building in the future will come to be the work of the architect. It is his own fault if it doesn't, but he must not think of cottages separately. I think that the profession would do well to have an exhibition of housing schemes, and I think it would do well if it were to offer through the Institute one or two prizes to students for ideal schemes. The profession must hold on to this housing while the nation is interested. It has made a very good start under Mr. Hare, our President, in arranging for these national competitions, and it has, I am pleased to intimate, arranged for a special, and what I believe to be acceptable, set of charges in connection with such schemes, and I hope it will continue to do more.

Mr. GEO. HUBBARD, F.S.A. [F.]: May I ask Professor Adshead one question? He talked of this vast scheme for building half a million cottages, but he made no mention as to where the funds are to come from to put up those cottages. Has he any scheme in his mind?

Professor ADSHEAD: Part of the cost would be made up on business lines; the rest would be a subsidy from the Government.

Mr. ROBERT S. WEIR : Money lent without interest ?

Professor ADSHEAD : Money handed over.

Mr. HUBBARD : You think that is a business proposition.

Professor ADSHEAD : Yes, a national proposition.

Mr. HUBBARD : I look upon this subject from an entirely different point of view from the one taken up by Professor Adshead. It seems to me that the suggestion he puts forward is that it is a matter of national importance that there should be these houses for the working classes. (Hear, hear.) If so, and the Government is to provide the money, I think you are going a long way towards stopping private enterprise. It is private enterprise which has invariably helped this country in all times of trial ; and if there is a time of trial coming in the matter of erecting cottages for the working classes I think private enterprise may be left to solve the problem. Just regard for a moment what has been the effect in the past. I admit there is the growing evil of an insufficiency of dwellings for the working classes ; that, to my mind, has been brought about partially by certain semi-philanthropic bodies, such as the Peabody Trust, the Sutton Trust, and Borough Councils, who have undertaken to put up dwellings and have been satisfied with a $\frac{1}{2}$ per cent. return on their outlay. The question is one of supply and demand. If there is the demand it is far better to leave it to private enterprise to create the supply.

Mr. HENRY R. ALDRIDGE (Secretary, National Housing and Town Planning Council) : The essential feature of the remarks we have just listened to is that the interaction of the forces of supply and demand has met housing needs in the past. If that were true the argument would have very great weight. But I venture, with all respect, to submit that it is not true. When I hear that private enterprise has in the past met our national housing needs, my thoughts and my memories—going back over twenty years of housing work—bring up definite pictures. I remember, for example, a Northumberland mining village of absolutely worn-out shells of houses, consisting of one large room below and a kind of lean-to at the back, a movable step ladder leading to a bedroom above built under the slant of the roof, with the window beginning at the floor level and only rising about four feet. I remember that as a product of supply and demand in the past. I remember, as another example, the secretary of a workmen's organisation telling me that, a little while before, there had been an inquest in the village on the child of a miner which had met its death by falling down a bedroom step-ladder.

Speaking with experience of the past, I am clearly of opinion that private enterprise has broken down. If this be true—and I submit that it is not a matter of argument, but a matter which can be ascertained and accepted by men who are out to seek the truth—

then the argument as to the successful operation of the laws of supply and demand in the past vanishes.

I was hoping that Mr. Wills would have been here to-day, for I cannot help feeling that he is inclined to give more thought and attention to academic questions of economic theory than to questions which concern the daily life of the people. There is, moreover, too great a tendency in this and other quarters to say of any drastic proposal : " This is Socialism," and to overlook the fact that it may be Christianity.

Professor Adshead spoke of the attitude of the architect in the past. May I say—and I hope I shall not be misunderstood—that I think that when there is a " searching of heart " amongst architects and professional men generally there will be profound sorrow at their failure to rise to a great opportunity. Remember that in the building industry you are the cultured men ; you should be the intellectual leaders. But you have been " dumb dogs " in the past when the housing needs of the people were being urged.

I believe we are at the threshold of a great period of Renaissance, and that if only the architect will rise to the height of his opportunity he will in this period take a greater place in national life than he has ever taken yet. But he must pay the price—he must take a living interest in social problems.

Professor Adshead spoke of the craftsman of a hundred years ago. The craftsman then was a living entity to the builder, and to the architect who designed the building. But in recent years the architect has never thought of the craftsman—except as a kind of individual machine—and the men of culture who should have acted as an aristocracy and have watched over with deep concern the welfare of the workers in this great industry have developed into a kind of " snobocracy." They have neglected their duty towards their poorer working-class brethren in this great building craft.

The architect must " set his house in order " and put an end to this period of neglect by combining with the builder and the workman to raise the whole status of the industry of which they are a part.

May I now deal with some detailed questions as to the need for preparing housing schemes. At the end of the war we shall be faced not only with a colossal housing shortage but with the need for providing work for great masses of men in the building industry. The building industry is a muscular industry, and has contributed very finely indeed towards the defence of the country. A third of a million will need to be demobilised from the Army, and it will be in the interests of national economy to see that these men shall be liberated as early as possible and sent back to work in their industry. More than another third of a million are engaged on war work, and when war work ceases the problem of utilising their energy must also be dealt with.

It is for these reasons that we are urging that schemes shall be prepared now. But it is suggested that we cannot make such preparations now ! Surely

that is a pitifully poor view to take in regard to a great problem; it is a policy of drift. Personally I would a thousand times prefer to be condemned by every building paper in the land for advocating a constructive policy than commit myself to such an inept, miserable and wretched policy as a policy of drift. It is a policy which is ignoble, a policy which is everlasting mean. Happily, despite all the criticism, our constructive policy holds the field—viz., that the Government should call on the local authorities of the country to prepare and hold ready housing schemes.

Professor Adshead mentioned that the Government will give grants-in-aid. Assuming the forecast given by Mr. Hayes Fisher in a speech at Manchester at the end of last year to be correct, this aid will take the form of a grant of one-third. That is to say, in a scheme costing £90,000, £30,000 will be given as a free grant. It has been suggested that similar aid should be given to private enterprise. But suppose you submit such a proposal to Parliament, what will Members of Parliament say in regard to the following problem: Assuming that a speculative builder is given a grant-in-aid to the extent of a third of the cost of construction (say £100 out of £300), at what price will he sell the cottage when it is built? The building cost will be £200—viz., £300 less £100. Will the builder be left free to accept the offer of the highest bidder? If so, then he will possibly be able to get £350, and the £100 given by the State will be a clear bonus to him. To go to Parliament with proposals such as these (which no responsible Member of Parliament can regard as worthy of serious support) is to be foolish and not practical, and when the Editor of *The Builder* suggests that in rejecting such proposals as these we know nothing of economics he is making a grotesque misstatement.

Speaking for the Committee of the National Housing and Town Planning Council, I should like to add that we have given most careful consideration to the problem of private enterprise, and I personally hope that much can be done in providing a wise solution for some of the difficulties. But you will not get a wise solution by attacking local authorities. Let us always realise that from the point of view of Parliament the local authority is the one body which can be trusted, because it works in the public interest. May I add that the statements so freely and so extravagantly made with regard to the greater cost of local authorities' cottage schemes are untrue. I find on investigation that there are at least fifty schemes of cottage building by local authorities which are quite as good as any private building schemes. To those who say sarcastic things about these schemes of local authorities let me throw the challenge back and say: "Bring out your definite cases of extravagance in cottage building schemes—not slum schemes—and let us examine them fairly on their merits." The truth is that many critics of local authorities have been repeating, parrot-like, the ex-

travagant criticisms of other people. They have never ascertained the facts for themselves.

In conclusion, may I refer to a remark made by Professor Adshead. He said, "Housing to-day has become almost an obsession." If he means that everybody is now realising the need for action I am very glad, because we have been at the other extreme in the past. But why is it that this movement has touched the national conscience? Surely it is because we have, as a nation, in this war, "found ourselves." Men have come pouring out of houses which are not fit for human beings to live in—north, south, east and west—to serve their country. If they had had a "niggling" kind of patriotism they might have asked whether their homes were worth fighting for. But they have been good Englishmen and have put aside their grievances and sense of neglect. This movement will go forward because the conscience of the nation realises that a debt will need to be paid to these men. The debt represented by War Bonds will be paid—every penny of it. It is "up to" the conscience of the nation to pay in full this other debt—a debt which we owe to the men who are serving the nation so splendidly in the time of need.

Mr. HUBBARD.—I do not know whether I may be allowed to speak again, but I have been accused of advocating a retrograde policy, and I do not want that impression to remain unchallenged. All I ask is that you should strip the subject of sentimentality, and look at it from a purely business point of view. If the Government is to supply one-third of the cost as a voluntary gift, and not as a charge on the building, who will receive that gift when the builder sells the house? Such a scheme would be economically bad and unbusinesslike. I fully agree with every word that has been said as to the need for better housing of the working classes. "The life of the nation is in the breath of the school children," and if they cannot breathe pure air in their houses the health of the country will suffer. Let the standard of the dwellings be settled by authorities, and let private enterprise do the rest. If private enterprise has failed in the past, this has been partly due to the action of the semi-philanthropic bodies, who have stifled private enterprise.

Mr. W. S. PURCHON, M.A. [A.], Sheffield: The title of this Conference is, I think, particularly fortunately worded, "National Housing and National Life." I fear that as a people we have not realised the relation between the two. We are only just beginning to realise that our men, women and children are our greatest national asset. With this realisation comes the belief that a thorough overhauling of the housing of our people is an urgent necessity in the highest interests of the nation. Were it not for the fact that we know that housing has been undertaken in haphazard fashion in the past, we might come to the conclusion that the conditions which obtain in some of our towns and cities are the result of a deliberate

attempt to crush out our civilisation. Large numbers of our houses are of such a type that it is definitely known that they are having a most serious effect on our infant mortality rates, while the honest craftsman with a moderate-sized family is made to feel—not that he is a worthy citizen—but rather that he is an undesirable tenant.

For some years now I have been trying to interest the people of Sheffield in the problem of their own city, and possibly a few particulars of a concrete example may be helpful to the Conference. In 1904 new houses were built in Sheffield to the number of 2,527—a figure which was steadily reduced to 438 in 1915, and during the last three years 1,000 houses have been destroyed, whereas in the ten years prior to the war only 500 in all were demolished. Before the war our M.O.H. reported a serious scarcity of houses and an increase in the number of cases of overcrowding. In 1911 there were 4,729 overcrowded houses in Sheffield, and nowadays houses are being run—like the factories—on the shift system. Out of our 107,000 houses, 16,000 are of the back-to-back type, and here in the Royal Institute of British Architects I think I need not do more than mention that these houses are, in the very nature of things, unsuitable for their purpose.

In addition to these 16,000 back-to-back houses there are another 8,000 which are referred to in a recent official report as "more or less insanitary and unhealthy." This gives us a total of 24,000 seriously defective houses, in which are dwelling some 120,000 to 150,000 out of our population of about half a million. Not only have the people who are compelled to live in these houses to put up with the serious inconvenience of having only one room to act as a combined scullery, kitchen, living room, parlour, bathroom and washhouse; to run the risks consequent on having no ventilated larder and on using so-called sanitary conveniences reached in many cases after walking some little distance down the street and across a yard common to a number of dwellings, but such is the amazing irony of fate that by many thoughtless people they are actually condemned as "slum-dwellers" to be unfit for a better environment. "They would turn a garden city into a slum in a year or so" one is told over and over again.

On the whole, one comes to the conclusion, after looking more closely into facts, that these fellow-citizens of ours are far from being what we understand by the term "slum-dwellers"; on the contrary, they are in the main self-respecting, hard-working men and women who are making an ~~unconscious~~ effort to keep up a decent standard of life under ~~unfavourable~~ circumstances which we can only dimly realise.

It must also be remembered that in the districts containing the back-to-back houses the infantile mortality rates are about double the English average. This is largely due to the absence of ventilated larders. When there is no suitable storage for milk a high death-rate among babies follows "as the night the day."

We need in Sheffield 6,000 houses to make up the present shortage, 24,000 to replace the present unsatisfactory houses, and 1,000 new houses each year to provide for our normal increase of population of about 5,000. So that during the next 20 years we ought to build 50,000 houses. Looking ahead for 20 years is not, I submit, a wild dream of Socialism, but mere sound common sense. If the normal rate of growth is not maintained, well, we shall then have looked ahead for, say, 30 years instead of 20. And in looking ahead we need not stop at 20 or 30 years. The main advantage of this looking ahead is that it shows us the desirability not only of seeing that the new houses are well designed and well built, that new roads and open spaces are properly laid out, that ample provision is made for the sites of such necessary public buildings as churches, schools, libraries, baths, etc., but that it also obliges us to consider the present city in its relation to the future developments, whether the latter are in the nature of the usual extensions to the city or arranged as groups of garden villages more or less removed from it.

If we can only realise that during the next 20 years we are to pull down a quarter of our present houses, and that we are going to build half as many as we now possess, surely we shall realise that it will be well worth our while to consider the whole city and its developments as a complete unit. The sites of the defective houses are in many cases urgently required and most suitable for works extensions; we must see that they are not used less suitably.

Our present traffic facilities only provide with difficulty for present needs—extension of them may not be enough; they may need remodelling, and this should be considered before we proceed far with our building programme. The fact is that urban housing cannot be considered wisely apart from a consideration of the making of efficient towns and cities.

With regard to the planning of the houses I should like to emphasise the importance of paying increased attention to the question of aspect—the making, for instance, of necessary differences between houses built on opposite sides of roads. I hope we shall agree that a bath is a necessity in every house, and that while a large living room plus a scullery is far better than a small kitchen and a small parlour, in the case of large families a parlour in addition to the living room possesses great advantages, particularly if we think of the educational facilities for which we are hoping.

Apart from the important questions of planning houses and simplifying details so as to reduce the work of running a house, looking ahead and thinking of large numbers of houses ought to make us consider to what extent we can use various labour-saving devices. Much, I am sure, can be done, but we must not go to the extreme and turn our kitchens into engine rooms, so that mechanics will be needed instead of servants. The installation of patent dish-washers, for instance, might possibly lead to far more work than the old-fashioned washing of pots. At the same time we

should beware of dismissing suggestions as absurd without giving them careful consideration. I imagine nothing could sound more absurd to us than the delivery of gas to houses must have sounded to our forefathers, and the delivery of hot water to dwellings may turn out to be quite practicable.

Communal ideas should certainly be considered carefully, and experiments should be tried on these lines where conditions seem favourable, as here and there they undoubtedly are, but as a people we are not ready for them yet, and I doubt whether we ever shall be.

I am not an economist, but wish to say one word on the question of finance. Keeping down the cost of house-building is extremely important, but we should not let it develop into an obsession. After the war money will doubtless have a lower value than it had before the war, and one result will be the higher minimum wage, which I hope we shall agree should not be less than will allow the paying of the economic rent of a house in which a man and his family can live in reasonable decency and comfort. In Sheffield I know that many workers, not only under war conditions but also before the war, earned such wages that they could have afforded to pay higher rents, and doubtless many of them would have moved into better houses had such houses been available.

To me it seems clear that the housing problem is at the root of most of our social troubles, and that bad housing conditions are a menace to the future development of our civilisation. There is still great need for the education of the public on this point, and I trust that architects will help to put forward high ideals. The architect is still sadly misunderstood by the public. He has designed an absurdly small proportion of our present houses and he is condemned for the defects of those he has not designed. If the country realised more clearly the help which the architect can give in this pressing question the architect might benefit incidentally, but the gain to the community would be enormous.

At the close of the Boer War, Kipling, writing of the return of our soldiers, makes one of them say :

" 'Ow can I ever take on
With awful Old England again,
An' 'ouses both sides of the street,
And 'edges two sides of the lane ? "

The Boer War was a different thing from the struggle in which we are now engaged, and the "Tommy" of whom Kipling wrote was different from our present citizen-soldier, but there has been little change in the houses. Let it be part of our task to use our utmost endeavours to make the housing of the future something vastly better than the " 'ouses both sides of the street" at which Kipling's "Tommy" quite rightly turned up his cockney nose.

Mr. CHARLES T. RUTHEN [F.] : After Professor Adshead finished his paper, it appeared to me that the time of the Conference was to be taken up in the discussion of the problem of the ability or otherwise

of private enterprise to undertake satisfactorily the erection of these houses after the conclusion of hostilities. I am rather glad, however, that that much debatable point has not been pressed further. Still, I think it ought to be pointed out to those gentlemen who say and keep on saying that private enterprise did in pre-war days satisfactorily cater for the working classes, and that the same agency should be allowed to do so in post-war days, that private enterprise did not in fact perform this duty. The shortage of houses for the working classes in South Wales before the outbreak of war was variously put at from 40,000 to 75,000. That shortage had been accumulating for at least twenty years. If private enterprise was satisfactorily catering for the working classes, how did this shortage come about ? Those advocates of private enterprise claim that something like 97 per cent. of the houses erected were built by various forms of private enterprise, and this statement is passed over as being conclusive evidence of the efficacy of these agencies to carry out this work in the days to come, without interference. We are to assume, therefore, that 3 per cent. have been erected by some other agencies, and that those other agencies are local authorities. I think I am perfectly right in stating that had local authorities (or others) not erected the 3 per cent., the advocates of private enterprise could have come forward with the statement that "we have erected 100 per cent. of the houses." Particular care is, however, taken to say that 97 per cent. of the houses "erected" have been built by private enterprise, not 97 per cent. of the houses "required." That is exactly where the trouble comes in. Supposing 150 houses are required in a district, and private enterprise erects 97 and the local authority three, what about the remaining 50 houses ? No one has supplied these houses and no one appears to be willing to supply them. Now, in South Wales, this difference between the houses "built" and the houses "required" actually reached the huge figures stated before. It comes to this : that private enterprise has been gradually withdrawing from the smaller and cheaper type of working-class houses ; particularly in my own district private enterprise has found this type less attractive and the class of tenant a little more difficult to handle. Therefore this lower or cheaper type of house has for the last twenty years been slowly but surely neglected. The problem in South Wales before the war was very acute, I may say very serious ; but after the war the accumulated shortage of many years, added to that due to the almost complete suspension of building activities for the war period, will present a problem demanding immediate and comprehensive treatment. One could paint a lurid picture of the "shift" system in the colliery districts of South Wales in the use of housing accommodation.

I expected to hear to-day a discussion upon National Housing and National Life. I am prepared to admit, of course, that at the bottom of all discussions on these

questions must come the subject of finance ; but I think it is time that those who consider finance only should go very closely into the question as to whether private enterprise has in the past performed the functions which it is claimed it could perform. If it has not done so, those who talk about private enterprise should admit it. They ought not to cling to this idea and attempt to ruin what is a real national project by adhering to what is, as they must admit if full enquiries are made, false. We want a little bit more humanity to start with, and just a little less book-keeping : it would be better in the long run. Is there anyone here or elsewhere who suggests that a real comprehensive housing scheme should not be carried out because it cannot be shown to be sound commercially? Does anyone suggest, for instance, that lunatic asylums pay ? or that workhouses pay ? Why, then, keep them up ? Why not provide the workers with decent homes and not build lunatic asylums ? Fifteen years ago I claimed that it was very much better to pay 1s. in the £ as a rate for a good housing scheme than that much or more for a good workhouse scheme, or for a good lunatic asylum scheme, or through the Imperial Exchequer for a jolly good jail. Surely it is very much better to give the people good homes.

I think Professor Adshead to a large extent covers the points I proposed to mention, but may I suggest that in the housing schemes of the future "housing" is a word which should be applied very, very broadly, very nationally, and that it should, if I may be allowed to suggest it, be made to cover the workshops as well as the homes of the people. Also that the whole planning should be broadly conceived, and not be merely considered as a scheme for providing some kind of cover for the people from the elements. On the subject of National Housing and National Life it appears to me that the question of housing should be interpreted in its comprehensive sense, industrial as well as social, in its relation to commerce, to industrial accommodation, as well as that of housing in the generally accepted sense of providing homes for the people. Housing in the past, that is, only in the sense of providing homes for the people, has been considered, except in the case of a few outstanding and well-known examples, apart altogether from the demands of commerce and of industry, with the result that there have been distinct and, one might say, unfortunate and unnecessary separations of classes. The homes of the workers have been established without any regard for that social well-being that one would suggest is necessary to produce a satisfactory condition of affairs. The requirements of industry have been considered apart altogether from the social needs of those who have to labour. This lack of consideration has resulted in the separation of the classes already referred to, and in the isolation of the working-class members of the community. The barrier between the classes has been in this way unnecessarily broadened, and a feeling of alienation is

thereby engendered. As a result there has been produced an animosity, a feeling of resentment among the great body of the working classes, which is so disastrous to national life and so productive of industrial unrest and strife. The lack of social intercourse and the absence of that feeling of friendly association have brought about an antagonism disastrous to national life and exceedingly difficult to combat.

The children of the workers are nurtured in an atmosphere of bitterness towards all other classes of the community, and the class of citizen which will compose the coming generation will, justifiably in my opinion, be antagonistic to the other classes of the community who have been able to occupy homes removed from the grime and toil of industry, while the workers and their children have been prevented from enjoying the opportunities of seeing the better and brighter side of life.

Professor W. R. LETHABY [F.] : I would like to associate myself with every word Mr. Aldridge said, also with every word Mr. Purchon said, as well as with those of the last speaker. I wish we could impress these matters on the government of this Institute. Could we pass some resolution here asking the Council to consider this matter with a view to forming some constructive policy ?

MR. ROBERT S. WEIR : I did not intend to speak. I came to hear what architects had to say on this very grave question of housing, not as an architect but as a representative of a local authority. Anything I may say is a result of my practical experience of the last few months, and I think you will agree that an ounce of practical experience is worth a pound of theory.

I am a member of a rural district council, and the rural side of housing appeals to me very strongly. I am afraid it is being overshadowed by the much larger problem of urban housing. I am always being accused of talking parish politics when I happen to get up to speak on this subject ; but, after all, in rural affairs it is the parish that is the unit. The parish in which I live is sufficiently near London to allow of its having been developed as a residential centre within the last few years. And one of the great causes of a shortage of cottages is that a large number of houses have been erected—by architects mostly—and their clients have evidently not thought very much about housing their employees. These houses have enough land attached to them to require the constant employment of one or two gardeners, and there may be a chauffeur as well. These men in very many cases have had to find accommodation in the village. Being paid good wages they have been able to outbid the ordinary day labourer when a house in the village becomes vacant. There is consequently a tremendous shortage of houses in that parish, and it is only one of 18 parishes in the rural district. The Local Government Board some years ago sent down an inspector to report on the condition of the health of the people in this district, and he reported that it was very bad,

owing largely to the defective housing. When the Housing and Town Planning Act came into force the local authority was bound under its provisions to inspect the housing in the district. This was done by the Surveyor, who made reports on the houses which he considered to be unsatisfactory, but the local authority declined to give time to discuss these. A few cases which were appallingly bad from the public health standpoint were considered, however, and these were dealt with in a haphazard way. This went on until the Local Government Board issued their Memorandum a year ago, asking for details as to the state of the housing in the district. I then urged that this matter must really be faced. The result was that a Housing Committee was appointed, of which I was made a member and eventually chairman. This committee at once undertook an inspection of the houses which had been scheduled as unwholesome and unfit for human habitation. We are gradually going through these parishes, and it is perfectly appalling the state of things which we find. When the committee was formed the members had no idea what they were going to see. They have had their eyes opened. And it will be our business to open the eyes of the council also to the facts. I am perfectly sure that out of about 1,000 defective houses 400 or 500 will have to be condemned outright: they are on bad sites, the floors are below the level of the ground outside, and whenever there is even a moderate rainfall the rain soaks in.

I do not want to occupy the time of the meeting by relating in detail the difficulties we are up against; but the question of proper food storage room has been mentioned, and I should just like to say that in 90 per cent. of the houses there is none. You ask, "Where is your food cupboard?" and they show you with pride an old box with a piece of wire over it which the husband has made for the purpose. And you know what that means. The infant mortality is very high, and whenever there is an epidemic it is worst in these cottages.

To sum up the situation, we shall probably have to build 600 to 700 new cottages. Put it at the lowest, 500 houses at £300 each. That means £150,000 for one rural district of 18 parishes in one county in England. You may take that as a fair average. I know ours is not a particularly bad district. A friend of mine was staying in Norfolk recently, and he told me that from his own investigation he came to the conclusion that more than half the houses there were unfit for human habitation. How we are going to get over it all I do not know. I suppose that when the Government scheme is brought out we shall see. How the rents are going to be fixed I cannot say. I had a conversation this morning with a member of the Agricultural Wages Board, a landowner in Wales. He said that in considering this question of agricultural wages they are also considering the relation of the rent to the total wage, so that the agricultural labourer may be paid such a wage as will allow of his being able to pay a

proper rent, and so he will be in a position to demand an adequate cottage. There are also other points which will have to be considered; for instance, the question of the tied cottage as between the farmer and his labourer. This gentleman's opinion is that the tied cottage is a mistake. He considers that a man should be free to have his own cottage, so that if he were dismissed from one particular job he would not have to leave the cottage too. I have also talked over the matter with others in the country, and it seems to me that all the more clear-thinking people are of the same opinion. And, of course, with the facilities—which will be increased after the war—for getting about, even in country districts, it is possible that in rural districts we shall be able to build new little hamlets, groups of houses sufficiently large to each form a co-operative centre. And one thing which I consider to be very important is that in building new houses in the country districts there should be plenty of land—one-eighth of an acre I would put down as the absolute minimum. I have come across awful hovels with gardens one-half and one-quarter of an acre in extent and very respectable people living under exceedingly bad conditions in them. Asked why they lived there, they replied: "We love a garden, and we took this because it had a beautiful garden." I want to see all the new houses built, as far as possible, with good gardens. And that leads us to the wider question of the revival of craftsmanship in the country districts—though I shall not enter into that now—and the placing of soldiers on the land—both these hinge on the question of housing. Some say many of the people are not fit to live in good houses. So we get back to the original question of education. I have seen children going to the village school nicely turned out, and I have gone to see the hovels they have come out of. One wonders then how they can have been so nicely turned out. (Hear, hear.) Mr. Purchon said something about the back-to-back houses in Sheffield. There are lots in our country villages with conditions just as bad. I am glad to hear from him that there is some hope of Sheffield. I had a letter recently from a friend, an architect by training, a very skilful craftsman, who is in the Air Force and stationed near Sheffield. He says: "The only thing I can say about Sheffield is, I should like to see it blown up by dynamite and rolled over by a number of steam-rollers and left for ten years, and a new town started, under better conditions, somewhere else."

Mr. A. R. JEMMETT [F.] regretted that the discussion had been confined to the political aspect of the subject, for which the Government, not the profession, was responsible. So far as the profession was concerned it did not seem to matter very much whether houses were financed from public or private sources so long as architects designed them. Design was our special responsibility, and in his view it would be more profitable to turn our attention to our own shortcomings in this respect, as outlined in Professor Adshead's remarks. From our point of view we

were no doubt justified in priding ourselves on our domestic work, yet from another point of view it might be said that we have hardly yet begun to think seriously and systematically how best to express the national life, as we live it and understand it to-day, in the national housing. We seem rather prepossessed by the sixteenth and seventeenth centuries, and do not go straight to contemporary life for our inspiration or make any definite effort to foresee its tendencies. Mr. Weir's experience of people willing to put up with miserable cottages for the sake of good gardens appears to confirm the view that cottagers share the modern tendency towards a more open-air life. From a modern standpoint a man's whole plot of ground—not merely his house—should be conceived as his dwelling-place—his home—and designed accordingly. The house itself tends to become more in the nature of a shelter from the weather and a store for personal belongings, while life is being actually lived more and more in the garden, so that space outside the house is as valuable and needs as much careful planning as space within. The tendency to sleep out of doors is growing, and a cottage with no facilities for this purpose seems rather out of date. This is only one of many technical points of arrangement and design suggested by Professor Adshead's observations, and they are surely more suitable for discussion at a conference of architects than the rival merits of public and private enterprise.

Mr. JOSEPH CROUCH [F.], Birmingham: I would like to mention a word in regard to rural housing. I am glad Mr. Weir referred to it, because it is a question which has been too much neglected in the past. With regard to the shortage of houses in rural districts, Dr. Addison referred the other day to the Report which was published in 1912, and which has been accepted generally as correct as to the condition of housing in rural districts. In that Report the shortage of houses in 1912 is given as 120,000, apart from the question of badly constructed houses and those unfit for human habitation. Since the war began it has been decided that at least three million acres of land previously in permanent pasture are to be broken up for arable; and those of us who live in the country know what has already been accomplished in that direction. This means that at least 30,000 new families will have to come on the land, which brings up the total to at least 150,000 houses which will have to be provided for in the near future. It is clear that in the rural districts it is impossible for these houses to be built to any extent in any other way than by the local authorities. I am a member of a local authority in a rural district in mid-England, and I know the class of people who compose these rural authorities. They are generally farmers, clergymen, and a few men of leisure in the district. The officials generally consist of a clerk, who is a local solicitor, generally a man of education and of fairly broad outlook, and the surveyor. The surveyor is not, as a rule, the sort of

man who by his training ought to be entrusted with the scheme of building these new cottages. We as an Institute ought seriously to consider the best methods by which the designing and laying out of these new cottages are to be prepared. It will not be simply isolated cottages in all parts of the country and in villages already existing: it will in many cases mean new villages with all appliances of communal life—churches, chapels, schools, village halls, etc. Who is to be responsible for the production of these new schemes? I believe there are two ideas under consideration: one is the appointment of Commissioners by the Government, who shall deal with these questions as they arise. The other is the appointment of some sort of Statutory Committee, composed of people in the district who have knowledge of the local requirements, persons of influence and standing, with a sufficient number of technical advisers connected with such committees. These Commissioners or Statutory Committees, as the case may be, will advise local authorities as to the best methods of procedure. It is, I think, a point on which we as an Institute might very well express an opinion as to what is the best method by which these new undertakings shall be brought to a successful issue. The question in the towns is not quite the same as in rural districts, where we have unspoiled Nature to deal with. In the country it is imperative that what is left of unspoiled England should be carefully preserved, and that architects who by their training have learned to reverence the past should have the control of the new developments. In very few cases will it be found that the local surveyor is the right man to be entrusted with this work, but in most cases it will be found that this will happen unless we as an Institute are able to influence public opinion in the right way.

The CHAIRMAN: The discussion has shown that architects are all very keenly interested in this subject and are anxious to bring about a right settlement. The only rock we show signs of splitting on is that of finance and economics. Mr. Purchon touched on a point which will appeal to all of us when he emphasised the fact that in the next quarter of a century we have not only to provide this large number of new houses but to rebuild a tremendous number of insanitary and insufficient houses. My experience shows that none of the figures which have been given are over-statements. Probably one-third of the existing houses, taking both town and country, are unfit for decent living. Some form of organisation is wanted, not only for the housing of the future but also for the treatment of existing insanitary dwellings. This Conference has performed a useful function in arriving at that agreement. Perhaps the meeting would accept Professor Lethaby's suggestion that the attention of the Council be drawn to this question, with the view of some definite steps being taken, not only to keep an eye on what has been done but to help things forward in the right direction.

Professor ADSHEAD (in reply) : Two points have arisen out of the discussion which I think we should not leave the room without remembering, and they were raised by Mr. Jemmett. There is, first, the direct interest of the architect. And that direct interest, it seems to me, takes two aspects. In the first place, in what way can we, as architects, associate ourselves with this great amelioration of the condition of the working classes with regard to housing? In the second place, in what way can we qualify ourselves better to undertake this task? Professor Lethaby mentioned the importance of striking while the iron is hot, and not leaving the matter to die out with this meeting. And, since he advocated our passing a resolution, I beg leave to move the following:

"That the Council be asked to report as to what can be done by the Institute to interest and associate the profession in the housing question, and, in particular, to consider the feasibility of taking such action as shall result in the Institute and the Allied Societies throughout the United Kingdom taking active measures to meet the housing needs and housing problems in their area."

Mr. Lanchester seconded the resolution, and it was carried unanimously.

The National Housing Competition conducted by the R.I.B.A. and Allied Societies.

The origin of this competition has already been recorded in the JOURNAL and the scheme of competition and the Conditions will be found in the issues for November and December last. The designs submitted were on view for a short time after the adjudication in the respective areas, the premiated designs in the provinces being eventually sent to the Institute and exhibited with the premiated designs of the Home Counties Area. The following is a complete list of the awards:—

CLASSES A, B, C : First Premium, £100; Second, £50.
CLASS D : First Premium, £50; Second, £30.

HOME COUNTIES AREA.

Assessors.—Mr. Henry T. Hare (*President*), Mr. E. Guy Dawber (*Hon. Sec.*), Sir Aston Webb, K.C.V.O., C.B., R.A., Mr. H. V. Lanchester, Professor Adshead, Mr. Paul Waterhouse, and Mr. Harry Redfern.

CLASS A.

First Premium : Mr. Courtenay M. Crickmer.
Second Premium : Mr. F. C. W. Barrett.

Hon. Mentions : Messrs. Wilson, Newton & Round, Mr. C. O. Nelson, and Mr. C. Wontner Smith (the latter's design purchased for 25 guineas).

CLASS B.

First Premium : Mr. Alfred Cox.
Second Premium : Mr. Courtenay M. Crickmer.

Hon. Mentions : Messrs. Wilson, Newton & Round, Mr. C. Wontner Smith, Mr. F. C. W. Barrett, and Mr. John C. S. Soutar.

CLASS C.

First Premium : Mr. Courtenay M. Crickmer.
Second Premium : Mr. C. Wontner Smith.
Hon. Mentions : Mr. Roland Welch, Messrs. Wilson, Newton & Round, and Mr. H. R. Gardner.

CLASS D.

First Premium : Mr. John A. W. Grant, Edinburgh.
Second Premium : Mr. W. R. Mosley.
Hon. Mention : Mr. C. Wontner Smith.

MANCHESTER AND LIVERPOOL AREA.

Assessors.—Mr. John B. Gass, Mr. E. P. Hinde, Mr. F. B. Dunkerley, Mr. P. S. Worthington, and Mr. G. H. Grayson.

CLASS A.

First Premium : Mr. H. L. North.
Second Premium : Mr. R. L. Collingwood.
Hon. Mention : Mr. J. Arthur Cox.

CLASS B.

First Premium : Messrs. Briggs & Thornely.
Second Premium not awarded.

CLASS C.

First Premium : Messrs. Halliday, Paterson & Agate.
Second Premium : Mr. H. L. North.

CLASS D.

First Premium : Messrs. Halliday, Paterson & Agate.
Second Premium : Mr. H. L. North.
Hon. Mention : Mr. J. Arfon Jones.

NORTHERN AREA.

Assessors.—Mr. R. Burns Dick, Mr. William H. Thorp, Mr. James R. Wigfull, and Mr. L. Kitchen.

CLASS A.

First Premium : Mr. J. Hervey Rutherford, York.
Second Premium : Mr. Alex. Inglis, Hawick.

CLASS B.

First Premium : Mr. Alex. T. Scott, Huddersfield.
Second Premium : Messrs. Knowles, Oliver & Leeson, Newcastle-on-Tyne.

CLASS C.

First Premium : Messrs. Knowles, Oliver & Leeson, Newcastle-on-Tyne.
Second Premium : Mr. Alex. T. Scott, Huddersfield.

CLASS D.

First Premium: Premiated design disqualified after award.
Second Premium: Mr. R. E. Hastewell, Colwyn Bay.

MIDLAND AREA.

Assessors.—Mr. W. Alexander Harvey, Mr. S. Perkins Pick, Mr. Sidney F. Harris, Mr. Harry Gill.

CLASS A.

First Premium : Messrs. Stockdale, Harrison & Sons, Leicester.

Second Premium : Mr. N. B. Robertson, Leicester.
Hon. Mentions : Mr. A. E. McKewan, Birmingham ; Messrs. Crouch, Butler & Savage, Birmingham, and Messrs. Ed. Garratt and H. W. Simister, Birmingham.

CLASS B.

First Premium : Messrs. Stockdale, Harrison & Sons, Leicester.

Second Premium : Mr. F. W. C. Gregory, Nottingham.
Hon. Mentions : Mr. N. B. Robertson, Leicester; Mr. Frank H. Bromhead, Hereford, and Mr. Charles F. Sims, Stoke-on-Trent.

CLASS C.

First Premium : Mr. F. W. C. Gregory, Notts.
Second Premium : Messrs. Stockdale, Ll. ...
Leicester.

CLASS D.

First Premium : Messrs. Cleland & Haywood, Wolverhampton.

Second Premium : Mr. A. E. McKewan, Birmingham.
Hon. Mentions : Messrs. Stockdale, Harrison & Sons, Leicester, and Messrs. Cleland & Haywood (the latter's design purchased for 15 guineas).

SOUTH-WEST AREA.

Assessors.—Sir Frank W. Wills, Professor Adshead, and Mr. James Crocker.

CLASS A.

First Premium : Messrs. Thornely & Rooke, Plymouth.
Second Premium : Mr. H. Heathman, Bristol.
Hon. Mention : Mr. Chas. Cole, Exeter, and Mr. T. Bradford Ball, Weston-super-Mare.

CLASS B.

First Premium : Messrs. Thornely & Rooke, Plymouth.
Second Premium : Mr. H. Heathman, Bristol.
Hon. Mention : Major O. P. Milne, Pulborough, Sussex.

CLASS C.

First Premium : Mr. W. A. Greenen, Port Sunlight.
Second Premium : Mr. W. Ravenscroft, Milford-on-Sea.
Hon. Mention : Captain Cyril A. Farey, Exeter.

CLASS D.

First Premium : Mr. Chas. Cole, Exeter.
Second Premium : Mr. W. A. Greenen, Port Sunlight.

SOUTH WALES AREA.

Assessors.—Professor Adshead, Mr. A. W. Swash, Mr. D. M. Jenkins, Mr. J. F. Groves, and Mr. J. W. Smith.

CLASS A.

First Premium : Mr. J. A. Hallam, Cardiff.
Second Premium : Messrs. Johnson & Richards, Merthyr Tydfil.
Hon. Mention (design purchased for 25 guineas) : Mr. Thomas A. Bevan, Cardiff.

CLASS B.

First Premium : Messrs. Johnson & Richards.
Second Premium : Messrs. A. Ll. Thomas and Gomer Morgan, Pontypridd.
Hon. Mention : Mr. C. Ernest Lawrence, Newport, Mon.

CLASS C.

First Premium : Messrs. Johnson & Richards.
Second Premium : Mr. C. A. Broadhead, Swansea, Glam.
Hon. Mentions : Messrs. Eaton & Cooper, Cardiff, and Messrs. A. Ll. Thomas & Gomer Morgan, Pontypridd.

CLASS D.

First Premium : Messrs. Johnson & Richards.
Second Premium : Mr. A. F. Webb, Blackwood, Mon.
Hon. Mention : Mr. Thomas Gibb, Port Talbot.

The whole of the premiated designs, together with three of those awarded Hon. Mention which were considered worthy of acquisition, have been sent to the Local Government Board. The drawings were accompanied by an

exhaustive Report from the President of the Institute addressed to Mr. Hayes Fisher, President of the Local Government Board. With a view to continuing the history of the Competition the following extracts are quoted from this Report:

In each of the Classes A, B and C designs were invited for (1) an end or semi-detached house, (2) an ordinary "terrace" house of 18 feet frontage, and (3) a long fronted house one room deep only;* and in order to test their architectural capacity the competitors were asked to design them in groups. Class D is intended to be erected mainly in country districts.

Designs to the following numbers were duly delivered in the several districts :

Area.	Number of Competitors.	Designs Received.
Home Counties	... 336	686
Northern	... 100	226
Liverpool and Manchester	... 132	301
Midland	... 107	248
South-West	... 67	169
South Wales	... 66	158
	—	—
	808	1,788

A Committee of Assessors for the purpose of adjudicating on the designs submitted was constituted in each area, and in each case a lady (in the Home Counties area two ladies) and a practical builder assisted the Committee with their advice.

The points which the Committee of Selection have borne in mind are the following :

(1) Adequate size of rooms ; (2) convenience of arrangements ; (3) a satisfactory architectural treatment having regard to the English tradition of cottage building ; (4) reasonable economy in design.

With regard to (1), it is considered that a living room should not be of less than 180 feet area ; that the principal bedroom should not be of less than 160 feet area, and that the second and third bedrooms should be as large as possible, bearing in mind the possibility of there being several children of each sex in one family. A suggestion has been made in this connection that it might be possible in the smaller bedrooms to arrange for beds in the form of bunks, one over the other where necessary.

As to (2), it is judged to be desirable that the living room and scullery should directly communicate with each other. The larder should be readily accessible from the scullery. The bath should be in an enclosed space in order to ensure privacy, and should have hot and cold water supply. In the case of the better-class houses, the bath is probably best placed upstairs, but it must be borne in mind that this involves extra expense in water services, &c. An exception must, however, be made in the case of mining districts where the bath room must of necessity be placed on the ground floor with as ready access as possible from an entrance, preferably that at the rear. Cloals and w.c. should be accessible if possible under cover.

In each of the Classes A, B and C a house of 18 feet frontage was asked for. The competition, however, is considered to have shown that this frontage is too restricted to allow of a thoroughly satisfactory house without out-buildings, particularly in Classes B and C, and that the minimum width of frontage should be fixed at 20 feet.

As to (3), it is felt that a satisfactory architectural treatment is of great importance so far as the limitations of expense will allow, and that this may be attained without elaboration but simply by careful grouping of the houses, study of the design and spacing of windows, &c. In urban districts it will be advisable to avoid the use of dormer

* This wide-fronted house is intended for erection in positions where a satisfactory aspect for the living-room cannot be otherwise obtained, and for sloping sites where the erection of No. 2 would involve waste on account of the fall of the ground.

windows on the ground of expense and cost of maintenance; but it is suggested that in rural areas in many cases it may be well to incur the small extra expense of dormers. A hard and fast line in this respect should not be insisted upon.

In all the designs projecting wings or outbuildings in the rear have been practically eliminated, as it is considered that the rear of houses of this class should be as open and free from building as possible.

With regard to (4), it is impossible at the present time to give any estimate of the probable cost of the houses shown. The cubic contents of each house are stated on the drawings, but it is impossible to say what is the present advance on pre-war rates.

The immediate erection of a pair of houses of Class A or B in or near London in an easily accessible position is strongly recommended. These might be on a site already in the possession of the Government, and in such a locality as to be ultimately available for normal occupation by working-class families. It is suggested that one of the houses should be completely furnished ready for occupation in consultation with a Committee of working-class women and others who have made a study of the requirements. There are many valuable ideas afloat for improving the general equipment of these houses and for providing certain simple labour-saving appliances, which it will be difficult to materialise unless some such method as is suggested be adopted. If it could be arranged to erect a complete group as shown, the result would undoubtedly be more satisfactory.

The actual building of these houses will enable the cost to be fairly accurately ascertained under the present uncertain conditions, and will also provide an opportunity for inspection by local authorities throughout the country, committees of working-class people, and others interested in this question, in a far more explanatory manner to the general public than can possibly be the case with plans only.

Generally speaking, it is felt that, although nothing very original or revolutionary has resulted from the competition, a great deal of useful information has been received, and it has led to a very widespread interest and study of the whole problem of the design and construction of these cottages. If the competition is now followed by the erection of typical cottages as suggested, an important step will have been taken towards preparing the way for a really satisfactory solution of the problem of housing the working classes immediately conditions allow.

It is hoped that the Local Government Board will think well to issue a publication illustrating some or all of these designs. It should be emphasised, however, that such published designs do not obviate the necessity for efficient architectural advice before proceeding to build.

REVIEWS.

AN IDEAL INDUSTRIAL VILLAGE

Port Sunlight. By T. Raffles Davison, Hon. A.R.I.B.A.

Port Sunlight has been frequently described both in articles and separate publications, but the volume which Mr. Raffles Davison has written and illustrated is by far the most complete and vivid presentation of the village and its underlying principles that has yet appeared. Mr. Davison is seen at his best in many of the drawings, which give, in all those cases where a general view is aimed at, a far better realisation of the subject than a photograph. Mr. Davison, however, with rare reticence for a draughtsman, has by no means rejected the use of the camera, which for

detailed groups of cottages gives results for the architect which no sketch would quite attain.

Mr. Davison is particularly happy in the general bird's-eye view of the village and works, and of the Diamond, taken looking towards the Art Gallery, the latter building being still unfinished, by reason of the war. However well one knows Port Sunlight, this volume of Mr. Davison's must cause continual surprise owing to the wealth of material and the unceasing charm of the subject-matter. Though still not completely built up, Port Sunlight contains enough houses and institutional buildings to give one an idea of what such an industrial village can be like. It cannot, of course, be hoped that so much money will be forthcoming after the war to expend upon external details, as has fortunately been the case in Port Sunlight, but it will always remain a monument of what it was possible to achieve in the days of peace.

The descriptive letterpress is adequate, and covers nearly every aspect of the village, including the planning of the houses. These, by the way, are extremely simple and economic in arrangement, and are of such types that their use might easily be continued even under changed conditions. It would be fortunate for those who are interested in housing in this country if Mr. Davison would make this volume the first of a series: there are at least 12 garden villages and suburbs which are worthy of a monograph.

PATRICK ABERCROMBIE [A.]

THE LATE PERCIVALL CURREY [F.]

The death took place at Bath, on the 18th May, of Mr. Percivall Currey at the age of sixty-seven. The second son of Mr. Henry Currey [F.], he was educated at Eton and was a member of the Eton Eleven and in after years was well known as a fine cricketer. He served his articles with his father at 37 Norfolk Street, Strand, was elected an Associate of the Institute in 1880, and a Fellow in 1888. He was also a Fellow of the Surveyors' Institution, and acted for some years as Hon. Secretary to that Institution. He was Hon. Secretary for 25 years of the Architects' Benevolent Society, in which capacity he acted with much kindly feeling and discretion in helping those in distress, and in this Society he was formerly associated with Mr. Arthur Cates, who held the post of Hon. Treasurer. At a meeting of the Council of the Architects' Benevolent Society a vote of condolence and sympathy with his family was passed.

Mr. Currey held the post of Surveyor to St. Thomas's Hospital, to the Duke of Devonshire, and to the Hunstanton Estate. His chief works were a new Nursing Home for St. Thomas's and a Reception Hall, temporary Huts for the wounded at a cost of £12,000, the new Pump Room at Buxton, and plans had just been completed for a new Out-Patients' Department, at an estimated cost of £60,000; also several private houses

and schools and factory premises. Shortly before his death he was engaged in assessing the value of buildings under the Ministry of Munitions and this necessitated travelling all over the country, which probably brought on an attack of his former complaint and hastened his end.

His was a singularly charming personality and he was most popular with all his professional brethren; as one of the members of his staff said, he was almost too kind a master. The present writer, who knew him from boyhood and was associated with him in business, can bear witness to his single-mindedness and devotion to duty. He was a true gentleman and his loss will be deeply felt by all his associates. He is succeeded in his practice by his son, Mr. Harold W. Currey, who at present is an instructor in the Royal Garrison Artillery at Lydd.

W. HILTON NASH [F.]

RESEARCH INTO TIMBER.

In May 1916 the Institute Research Committee sent to the Advisory Council on Scientific and Industrial Research a considered Memorandum on the subject of Dry Rot.* The Committee have since been dealing with the whole subject of research into timber, and in continuation of their earlier report the following memorandum on the main subject has been sent to Sir Frank Heath, C.B., Secretary of the Advisory Council :—

That the subject of research into timber, with the view to its more economical use and increased production, is of supreme importance to this country, may be judged from the fact that in 1913, the last complete year before the outbreak of war for which returns are available under normal conditions, the imports amounted to over £40,000,000, three-fourths of which represented soft-woods and the remainder hard-woods (see report in *The Builder*, 20th October 1916, on Professor Groom's lecture on "The Empire's Timber Trade"). By far the greatest proportion of this timber as imported in times of peace was used for the building and allied industries.

For many years after the war there is little doubt but that there will be a great shortage in the supplies of timber, especially of the soft-woods; and an increase in the supplies can only be obtained by the following three methods :—

- (1) By afforestation on a large scale in this country.
- (2) By a much greater increased use in this country of woods grown in the various parts of the Empire, either—
 - (a) In substitution for woods formerly imported from enemy or neutral countries; or
 - (b) by the exploitation of new timbers not at present in common use here.
- (3) By research work upon timber, with a view to the prevention of waste and to its more economical use.

As regards item (1): We understand this is being dealt with by a Sub-Committee of the Cabinet, before which the Members of this Institute have already appeared and given evidence. (The question of afforestation, however,

different from the other points raised later, in that by the end of the war very little home-grown timber is likely to be available in this country, and afforestation will not produce results for building purposes for, say, 70 years; rendering it, therefore, all the more essential that the other questions should be dealt with promptly.)

As regards item (2), sub-clauses (a) and (b): This branch of the subject is being dealt with by one of the Technical Committees of the Imperial Institute (the Indian and Colonial Timbers Committee), which was originally started at the instigation of this Institute, and on which three of our members have the honour of serving.

As regards item (3): We suggest that this is a subject which may commend itself to the Advisory Committee of the Privy Council on Scientific and Industrial Research, as promising most valuable results. Should the Advisory Council decide to investigate this subject, we suggest that the following matters call for research :—

(i.) Research into the causes of and the losses due to the decay of timber through the following causes :—

(a) Fungal (commonly called dry-rot);

(b) Animal;

(c) "Wear and tear" (e.g., in soft-wood blocks used for paving streets); with a view to eradicating such diseases or discovering or perfecting methods of preservation.*

(ii.) Research into the question of the "seasoning" of timber—

(a) By natural means.

(b) By artificial means.

(iii.) Research into the methods for rendering timber non-inflammable, or less liable to destruction by fire.

(iv.) Research into the uses of the waste products of timber (e.g., sawdust, chippings, shavings, small logs, etc.), either by chemical or other means.

(v.) Research into the conversion and mechanical engineering of timber with a view to its most economical use (e.g., by quartering, by rift-sawing, &c.).

(vi.) Research into natural and artificial methods for improving the "finishing" of timber (e.g., by staining, polishing, &c.):—

(a) For its more efficient preservation.

(b) For enhancing the appearance of the timber.

(vii.) Research into the by-products of timber :—

(a) Of the fibre: for such purposes as pulp, wood-wool, artificial silk, &c.

(b) Chemical by-products such as wood-alcohol, acetone, grape sugar, acetic acid, &c.

(viii.) Research into the destructive distillation of timber and the residue left in the form of charcoal of different kinds.

(ix.) Research into the oils, gums, resins, and other products obtained from various trees.

(x.) Research into miscellaneous subjects, such as the fire-resisting properties of certain timbers.

(xi.) Research into the supplemental products of trees for industrial purposes :—

(a) The bark of certain trees—e.g., for tanning.

(b) The fruit of certain trees—e.g., the acorn, the horse-chestnut (for the manufacture of explosives).

(c) The leaves of certain trees—e.g., for manure or other purposes (at present they are so much waste).

Signed on behalf of the Research Committee of The Royal Institute of British Architects.

DIGBY L. SOLOMON, Hon. Secretary.

* The Institute has already sent a memorandum on "Dry-Rot" to the Advisory Council, dated May 1916.



2nd Lieut. REGINALD FOWLER GUTTERIDGE, *Associate*,
London Regiment.
Killed in action (see p. 95).



Lieut. ARTHUR H. TUCKER, *Licentiate*,
Royal Sussex Regiment.
Killed in action (see p. 10).



EDWARD O'BRIEN, *Licentiate*,
Royal Army Medical Corps.
Died on service (p. 267, JOURNAL, Sept. 1917).



Lieut. HENRY CARLETON BRUNELLE, *Probationer*,
Lancashire Fusiliers.
Killed in action (see p. 10).



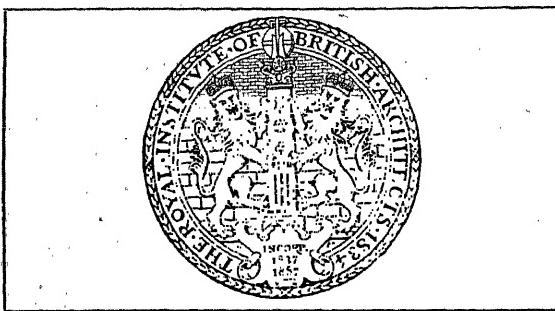
Lieut. GEORGE FRANCIS BLACKBURNE-DANIEL,
Royal Fusiliers [*Licentiate*].
Killed in action (see JOURNAL for May 1917, and
p. 101 of present issue).



2nd Lieut. CECIL WALTER ROGERS, *Associate*,
Royal West Surrey Regiment.
Died of wounds (see p. 25).



Staff-Sergt. CLAUDE EDGAR HILL, *Associate*,
R.A.M.C.
Killed in action (see JOURNAL for October 1917).



9 CONDUIT STREET, LONDON, W., 15th June 1918.

CHRONICLE.

R.I.B.A. Record of Honour: Fifty-third List.

Fallen in the War.

MANN, 2nd Lieut. HENRY WILLIAM, R.F.A. [Associate].
Killed in action on 30th March.

BINNING, Sergt. ALAN, London Scottish [Associate].
Killed in action in Palestine, 30th April.

BELLAMY, Lieut. OSMUND, R.F.A. Killed in action
near St. Quentin on 21st March.

Lieut. Bellamy was for some time in the office of Messrs. Gill & Richardson, and afterwards with Messrs. Niven & Wigglesworth. Attached to the Atelier of Architecture, he was a student of much promise and a gifted draughtsman. On the day of the great battle Lieut. Bellamy was in charge of a battery section of two howitzers away from the main battery, and the position being considered untenable he was ordered to move his guns back a thousand yards. Here he worked his guns until they were knocked out, and he himself was killed instantaneously by a high-explosive shell. His brother officers speak in highest terms of his courage and cheerfulness. So much was he liked and trusted that the men would do more for him than for any other section commander.

DAVIES, Lt. JOSEPH CHARLES GLADSTONE [Associate, 1911]. Drowned on service, 6th January.

Lieut. J. C. G. Davies, son of Mr. and Mrs. James Davies, of Tan-yr-Alt, before the War had an extensive practice in Swansea and Morriston. He entered the Inns of Court O.T.C. early in 1915, served as acting-captain and adjutant in Salop, and relinquished a staff appointment in order that he might go to the front. Serving with the Egypt Expeditionary Force, he was on his way in a cart with his servant and luggage to relieve an officer on duty some miles away, and while attempting to ford a stream which was very heavily in flood, the cart overturned and was washed down stream. Lieut. Davies and the driver jumped clear and reached the bank, when they found that the servant, who could not swim, was still clinging to the overturned cart, which had caught against something about 200 yards down. They both at once went in again, and the driver managed to rescue the servant, but on looking round found that Lieut. Davies had vanished, and no trace could be seen of him. His valise was recovered the following day some five miles away and later his body was washed up and interred by his comrades.

REYNOLDS, Lieut. JOHN ERIC, R.A.F. [Student].
Killed in action on 18th May.

HOOLEY, TOM WILLIAMSON [Associate, 1896]. Killed
in action in France, September, 1916.

FINCHER, Private WILLIAM, London Regiment.
Killed in action.

Private Fincher was for thirteen years the Institute office attendant. Good-natured, capable, always willing and obliging, and absolutely trustworthy, he will be much missed and sincerely mourned by the Institute staff.

Missing.

PITE, 2nd Lieut. HORACE VICTOR WALTER, Hampshire Regiment, *Probationer*, son of Mr. William A. Pite [F.]. Reported missing in Palestine, 10th April.

STONE, 2nd LIEUT. GEORGE MARRISON, R.E. [Associate, 1910]. Missing since August 1916.

Wounded.

BEVAN, 2nd Lieut. BASIL J., R.A.F., son of Mr. William Bevan [F.]. Wounded in action north of St. Quentin.

Military Honours.

Major-General CHARLES ROSENTHAL [Assoc. 1904], C.B., C.M.G., D.S.O., has been appointed to command the 2nd Australian Division which has achieved such distinction in France. Three times wounded and once gassed, Major-General Rosenthal has been five times mentioned in Dispatches; and besides his English distinctions has been awarded by the King of the Belgians the Croix de Guerre for services in Belgium.

Before the War Major-General Rosenthal had a large practice at Sydney, N.S.W., and was well known in the Australian musical world as an organist and baritone vocalist. The profession of arms, however, had always appealed to him. He joined the Australian Garrison Artillery (Militia) in 1903, and in 1908 was transferred to the Field Artillery and commanded a battery, eventually attaining the rank of Major. When war broke out he joined up at once and left Australia as Lieut.-Colonel in command of the 3rd Field Artillery Brigade, 1st Division, A.I.F., and with this command took part in the landing at Gallipoli and subsequent operations there. In February 1916, having been transferred to the 4th Australian Division in Egypt, he was appointed C.R.A., with the rank of Brigadier-General. With the same Division he served in the Sinai Peninsula, France, and Belgium, being in the fighting at Fromelles in July 1916, on the Somme at the end of 1916, at Bullecourt early in 1917, and Messines in June 1917. In the following August he was transferred to command the 9th Australian Infantry Brigade, and served in that capacity in the Third Battle of Ypres before Passchendaele in October 1917, and in March, April, and May of this year in operations before Villers Bretonneux and Morlancourt. At various times in France and Belgium he has commanded the 1st, 3rd, and 4th Australian Divisions, and on 22nd May was promoted Major-General and assumed command of the 2nd Australian Division. In the recent Birthday Honours List he was awarded the D.S.O.

WEBB, Major MAURICE, M.C. (son of Sir Aston Webb): awarded the D.S.O. for distinguished services in connection with operations which resulted in the capture of Jerusalem.

ATKIN-BERRY, Major H. C. (son of Mr. W. H. Atkin-Berry [F.]), D.A.A.G., Tanks Headquarters Staff: mentioned in Dispatches and awarded the D.S.O.

HAMMOND, Major F. S. [Licentiate], London Regt.
(son of Mr. F. Hammond [F.]: mentioned in
Dispatches and awarded the D.S.O.)

WILLIAMS, Captain GEOFFREY HYDE, Yorks and
Lancs Regt. [A.]: awarded the Military Cross.

HUXLEY, Major W. S., Royal Air Force [Licentiate]:
awarded the Military Cross.

FRASER, Captain GILBERT WILSON [F.]: awarded the
Military Cross.

MELLOR, Lieut. WILFRID LAW, East Lancs Regiment
[A.]: awarded the Military Cross.

OGLESBY, Captain R. P., Staff for R.E. Services
[Licentiate]: mentioned in Dispatches.

Promotions.

Captain H. P. G. Marle, D.S.O., M.C. [F.], has been
promoted Major, attached Headquarters Staff, B.E.F.

Lieut. Edwin Stanley Hall [A.], Royal West Surreys,
has been promoted Captain.

Lieut. E. G. Stevenson [Licentiate], has been promoted
Captain, Staff for R.E. Services.

Private J. Jackson Beck [A.], of the Light Ordnance
Mobile Workshop, B.E.F., has been granted a commission
as 2nd Lieut. in the Royal Garrison Artillery.

2nd Lieut. E. B. Maufe, R.G.A. [A.], has been promoted
Lieut., R.A., Aide-de-camp to G.O.C., R.A., B.S.F.

Architects under the New Military Service Act.

At the suggestion of the Architects' War Committee, the Council recently approached Sir Auckland Geddes and arranged for a deputation to wait on him on 16th May. The deputation consisted of the President R.I.B.A., Sir Aston Webb, Mr. E. Guy Dawber, Mr. Arthur Keen, Hon. Secretary of the War Committee, Mr. John B. Gass, representing the Manchester district, and Mr. S. Perkins Pick, President of the Leicester Society of Architects. In the unavoidable absence of Sir Auckland Geddes the deputation was received by Colonel Scovell, with whom were Colonel Hedley, Major Sim, Captain Lowe, Captain Duncan, and other officers of the Army, the Navy, and the Air Force.

Mr. HARE, in introducing the deputation, pointed out that their purpose was to secure that architects now to be called up should be placed in positions where their technical knowledge and experience should be utilised. Architects had no desire to avoid their full share of military service; out of some 4,000 on the Institute books between ten and fifteen hundred had already been serving and over a hundred had lost their lives. This was the second deputation of architects to the Ministry of National Service, the former one, which dealt with civil employment for architects in connection with the war, having had a most cordial reception by Mr. Neville Chamberlain. Many of the men referred to at the former interview were now, in view of the raising of the age from 41 to 51, placed in an entirely different position in relation to the Services, but he wished to make it clear that they possessed skill and experience that would be of far more value than any physical or clerical work that they could do. They were men of business and affairs, accustomed to responsibility and the direction of important undertakings requiring resource and initiative. In particular they were expert draughtsmen, used to maps, plans and drawings of all kinds, thoroughly well acquainted with the materials and processes of construction, many of them possessing good knowledge of land surveying and accustomed to making surveys and reports on property. They would readily adapt themselves to any constructional work that might be needed in the Army or

to such matters as arranging for billeting or hospital premises. The main question was how were they to be drafted into positions where the country would have the benefit of the best service that they could render. At present commissions were limited to men of under 35 years of age; it was important that this limit should be raised.

Mr. GASS stated that he represented a very large number of architects practising in manufacturing districts and many of them engaged in factories and other buildings connected with industrial undertakings. He showed that time, energy and material had been wasted to a most terrible extent in connection with Government work for want of just the experience and organising ability that architects such as these could have brought to the work. He handed Colonel Scovell fully authenticated written particulars of the gross mismanagement of building works carried out for one or other of the Services in his district, involving serious loss and waste and keeping large numbers of men practically unemployed at a time when the work that they might have been doing elsewhere was urgently needed. All this might have been avoided if men already in the Army had been put into positions of control for which their experience fitted them, but he stated that of twenty-four men who had gone from his own office only four, or possibly at the present moment seven, had been employed in technical work for which they were well fitted. Architects possessed specialised attainments which should be made use of just as those of doctors and dentists were, and the methods of selection used in the case of these professions should be applied in the architect's profession.

Mr. PERKINS PICK said that in all matters of building construction undertaken by the Government in this country the local knowledge possessed by architects might be of the greatest value in increasing efficiency and reducing expenditure: the organisations of the provincial societies gave the opportunity for making full use of this knowledge of local conditions and methods. He fully agreed with Mr. Gass as to the waste and mismanagement of building work carried out for departments under the Government. He hoped that when demobilisation began the architects would be among the first released, so that plans and preliminary work could be completed in time for works to be started as soon as the various craftsmen were available.

Sir ASTRON WEBB said he was sensible of the courtesy and patience with which their views were being listened to, and they were really anxious to present their case reasonably and temperately. Speaking from his own immediate experience, there were but three men left of his own staff, all three of them nearly fifty years old and obviously useless as Tommies, but any of them could do most valuable work if they were put into the right place. The whole matter seemed to resolve itself into a question of the best means that could be used for getting each man into the place best suited for him.

Mr. ARTHUR KEEN showed one of the War Committee's War Service cards, and stated that they were authorised by the War Office and had proved most useful in helping men already in the Army to get commissions or transfers. He suggested that similar cards, authorised by the Ministry, might be given to architects and the particulars on them entered by the recruiting officer on the man's Attestation Form so that they would not be lost sight of. He stated that in his capacity as Secretary of the Architects' War Committee he had met with many cases of men of outstanding ability being employed in the Army on work for which they had no particular qualifications. On the other hand, he knew of architects who had shown the greatest resource and enterprise in carrying out building work under difficult conditions, using shell boxes and petrol tins in the construction of hospitals and mess rooms, and making drains out of disinfectant tins. He would be happy to do what he could in securing information about the men affected by the raising of the age limit.

Colonel SCOVELL, in reply, said that Sir Auckland Geddes himself was most anxious to get men put into their right niches. He was concerned with finding men for the War Office, the Admiralty, and the Air Force, and there was no doubt that in the next two or three months great raids on the man-power of the country would be made. He felt that long views of requirements were needed; but, on the other hand, the urgent needs of the moment had to be met, and it was clear that at the present time infantry were badly wanted and that technical branches of the Services might have to go short.

Captain LOWE said that he would shortly be asking the Ministry of National Service to supply older men to take the place of young men fit for Army service.

Colonel SCOVELL remarked that there should be no difficulty in placing most of the architects who would be called up—in Colonel E.C. Hare's words, "in the various branches of Fortifications and Works; in aerodrome construction, &c.; but this was not the time to discuss details. He was fully in accord with the wishes expressed by the deputation, and he thought he had better meet the Hon. Secretary of the War Committee at an early date in order to draft a form on which architects could set out their particular qualifications before enlisting, and at the same time other details could be considered. At the present time men of 43, 44, and 45 were wanted, but there was no reason why older men should not be received for suitable work before they were actually called up.

Mr. HARE having expressed the acknowledgments of the deputation for the hearing they had received, the interview terminated.

All architects who are affected by the extension of the age limit are asked to communicate with the Hon. Secretary of the Architects' War Committee, 9 Conduit Street, W., in order that they may be communicated with in due course.

Building Control after the War: Mr. Wills's Motion.

At the conclusion of the ordinary business before the meeting last Monday, the President called upon Mr. Herbert W. Wills [F.] for the motion of which he had given notice—viz. :—

That this meeting express disapprobation of the action of the Council in permitting a form to go out with their sanction in which the following clause occurs: "Reasons (if any) for which you consider it to the national advantage that the building should be erected without delay," and request the Council to inform the Ministry of Reconstruction that the R.I.B.A. is opposed to any form of war control of building operations being exercised after the declaration of peace.

Mr. WILLS explained that he was inspired by no hostile feeling to the Council in moving his resolution, but simply wished to obtain an explanation of an apparent anomaly—namely, that the Institute should have given its sanction to a form issued by the Ministry of Reconstruction, one of the questions asked being of a nature to suggest the endorsement of the principle of control which was opposed to a formal resolution passed at a meeting of the Institute last January. The member who had promised to second the resolution was not present. Perhaps another member would second it as a matter of form.

Mr. GEORGE HUBBARD [F.] said he would second the motion as a matter of form.

Mr. HERBERT SHEPHERD [A.] objected that, there being only nineteen members present, it was not competent to the meeting to deal with the resolution. A question of management of the Institute was involved, and to vote

upon the question a quorum of at least fifty members was required (Bye-law 67).

The Bye-law having been read, the President ruled that the objection was valid.

Mr. JOHN W. SIMPSON [F.] pointed out that whatever interpretation Mr. Wills liked to put upon it his resolution amounted to a vote of censure on the Council, and he apprehended that if it were carried serious consequences would follow. It would be a pity, however, if the matter were to collapse, and he suggested that Mr. Wills might be prepared to modify his resolution so that it might become a request for information rather than a motion of censure.

Mr. WILLS said he would do this with pleasure. His purpose in bringing forward the resolution in this form was to ensure a very large attendance so that as many members as possible might hear the satisfactory explanation which the Council doubtless had to offer. He was perfectly willing to modify his resolution if it would produce a full explanation.

Mr. SIMPSON pointed out that even if modified the resolution would be irregular and the meeting could not vote upon it. With the President's leave, however, he should like to say a few words upon the matter. Mr. Wills, he believed, had already had all the information that the Council had at their disposal. One reason why he should not persevere with his resolution was that the Council had nothing whatever to do with the matter. The guilty persons were himself, the President, and Mr. Waterhouse. It was they who were asked by the Building Materials Supply Committee of the Ministry of Reconstruction to revise the form which the Committee had drafted. They revised it as drastically as they could, cutting out nearly all of it. Whether the form sent out agreed with their revised draft he was not sure.

The PRESIDENT: I think it did.

Mr. SIMPSON: At any rate, it had nothing to do with control; and a covering letter was sent out by the Ministry to explain that and to show that the questions asked referred to the first two clauses which formed the reference to that Committee, both of which dealt entirely with supplies of materials. The desire of the Committee was to ascertain what materials would be wanted when peace was declared, especially for buildings of national importance, the object being to obtain a supply of those materials as far as could be arranged. Later they came to the second two clauses of the reference, those dealing with control. That was a matter which it was considered should come before the Council; and the Institute representatives put it before them in the form of a summary which was published in *The Builder* and other papers about a month ago.* So the second part of Mr. Wills's motion, which requested the Council to lay the Institute's views before the Ministry of Reconstruction, had already been done; it was done a month before this resolution was brought forward. Continuing, Mr. Simpson said: I think we should all realise that, however much we may fight for the entire abolition of control, it is doubtful if we shall get it. I think it a very good thing to fight. We have met the Surveyors' Institution and the Builders' Institutes and have agreed to fight for no control at all, in the hope that we shall get as little of it as possible afterwards. But that we shall escape it altogether I do not think practicable. At the end of the war if you have no control you will have free markets—a very desirable thing in itself, but free markets mean a tremendous rise in prices, and that would be objectionable as far as building materials are concerned. The trouble is, that one of the most important materials we want—timber—is an imported material. And directly you come to imports you have to deal with tonnage; and, again, shipping is limited. You cannot bring your building materials and your other imported supplies into this country to compete in the open market with food, because if you allow food prices to go up—which will be

* See also JOURNAL R.I.B.A. for May, p. 165.

a natural result of open markets—if you allow them to go up to an improper extent there will be a risk of famine. And therefore you must assume that there will be an allocation of shipping; and if you are going to allocate shipping you must have control. How far that control will go nobody knows at present. But, bearing that in mind, we should be prepared to expect that for the first year, or it may be longer, there will be some limited sort of control by the Government, if not for home-produced goods, at least for imported goods. That, I think, is inevitable. That we should fight against it, and do so with the view of getting as little control as possible, and for the opening of markets as soon as possible, is extremely desirable, and on that matter the Council are united. That disposes of the second part of Mr. Wills's resolution.

Mr. WILLS : I quite agree with Mr. Simpson that we may not get all we want, and that we should fight for what we want, but the way to fight for what you want is not to give your case away, and I think approval of the form with that question on it is giving the case away.

Mr. SIMPSON : I have explained that that form had nothing to do with control; it had to do with the Committee of Supply.

Mr. WILLS : On this form is a question whether buildings proposed to be erected are for the national advantage.

Mr. SIMPSON : That has nothing to do with control.

Mr. FRASER : We had a communication from the Building Materials Supply Committee stating that this form had gone out after consultation with the Royal Institute of British Architects. Is that a fact, or is it a false statement?

The PRESIDENT : It is perfectly true. I will just add a word to Mr. Simpson's explanation. We were asked to assist the Ministry of Reconstruction in finding out quantity of material which would be required in various parts of the country for building purposes, & so far as they were involved by projects which they have in their offices at the present time. The Ministry had already sent a form out to public authorities asking them for particulars of buildings which they had in contemplation; and one of the channels through which they wished to gain information was that of architects who had work in their offices which was likely to go on immediately after the war. They asked us to revise a form which had been already drawn up asking for that information. That form we did revise, and pretty drastically. One of the clauses in the form was somewhat to this effect: "Give your reasons why this building should proceed immediately after the war." We altered the wording, but left the substance of it. There is no doubt that the Ministry of Reconstruction and other Departments of the Government have made up their minds that control of some sort will be necessary for a considerable period after the war, and they intend to have some kind of control. Does Mr. Wills suggest that when we saw this clause we should either have argued the question with them or have declined to have anything to do with them unless it was crossed out? To me the question which is asked on the form seems a perfectly harmless one and not worth arguing. It is a question which does not necessarily imply that there will be control; it is a question of providing certain information in case it should be found in the future that control is necessary. As to the views of the Institute and the views we have expressed to the Ministry of Reconstruction on control, these have been published in the professional Press and in the JOURNAL. That was another matter altogether from this circular. One claim only should be considered as entitled to priority—viz., that of works to be executed by, or on behalf of, the Government for immediately urgent national needs. All other claims should be regarded as equal; in other words, markets should be left free and unfettered by restrictions, so that production may be stimulated to its utmost, and prices thereby reduced to a

normal level at the earliest possible moment. I do not think we could express our views stronger than that: all control should be abolished at once. We have recommended it in the strongest way, and have enlarged upon it in giving our evidence. We did not admit we thought it advisable to have any control at all. Could we have done any different from the point of view of the resolution which was passed in this room?

Mr. WILLS : My contention is that, having given your advice as to the form, you should have asked the Ministry of Reconstruction to send out the form either with that one question deleted, or else with a note intimating your disapproval of it.

Mr. W. R. DAVIDGE : I move that the meeting do express its satisfaction with the explanations which have been given by the President and Mr. Simpson.

Mr. SHEPHERD : I will second that: and I would point out to Mr. Wills that there is another point of view, and that is that we have control at present. The whole aim of this Building Materials Supply Committee, as I understand it from their circular, was to have information in case, during the transition period from the time when peace is declared to the time when the markets for building materials are getting regulated, some system could be devised by which they could help the profession. And they ask in their circular letter—and that is where I cannot agree with Mr. Wills or understand his attitude in the matter—what they can do to assist the profession. They are there to aid us. Surely no practising architect could object to being asked the reasons he considers a building should be erected without delay as a work of national importance. If I had on hand a building of national importance which had been stopped by the war, it would be a great advantage to me to have it catalogued by the Government so that they could say, "This is a building of national importance and it should go forward." There must be a period of control or there would be chaos when peace is declared. It will take two years to deal successfully with demobilisation, and until that is dealt with the market supply of labour and material cannot be dealt with. This transition period is the sole reason of the circular issued by the Ministry of Reconstruction. If you can in any way help them to catalogue these important buildings it will be a help not only to the nation, but to the individual architect.

Mr. DAVIDGE : I think we should make it clear that we are with Mr. Wills in that we should have no control.

The resolution expressing satisfaction with the explanations given by the President and Mr. Simpson was then put and carried.

Building Materials required immediately after the War.

The Committee set up by the Minister of Reconstruction to inquire into the probable demand for, and supply of building materials for all purposes during the transition period after the war are instituting an inquiry into the probable requirements for such materials during the first two years after the cessation of hostilities. Forms of inquiry are being directed to local authorities and also to architects and others who may have schemes in contemplation. Unless the Committee are made fully aware of the prospective needs of consumers, it will not be possible for them to estimate how far supplies will meet likely demands, and their efforts to secure co-ordination may thus prove abortive. The Committee hope, therefore, that any person or firm contemplating building works immediately after the war, who has not received a form of inquiry will apply either direct or through an architect to the Secretary of the Building Materials Supply Committee, 6a, Dean's Yard, Westminster, S.W., for a form, which should be completed and returned by 1st July 1918. The Committee have

extended until 1st July 1918 the date for sending in the returns already issued. In cases where sketch plans only have been prepared, the preparation of complete plans and bills of quantities, &c., being postponed until after the cessation of hostilities, it would appear that no materials will be required until at least six months after cessation. As regards these works it will suffice if the undermentioned particulars are furnished : (1) County ; (2) Description of building ; (3) Estimated pre-war value of work ; (4) Estimated date of commencement of building operations ; (5) Estimated duration of contract. It is to be hoped, however, that endeavour will be made by prospective consumers to furnish, wherever possible, approximate quantities of materials, especially building stone and bricks, steel and timber. Materials required for works of repair, maintenance, &c., form the subject of a special inquiry, and particulars as to these are not required at present.

The Birmingham Civic Society.

The Birmingham Civic Society, which owes its existence to the very strenuous work of the Birmingham Architectural Association under the direction of the President, Mr. Wm. Harvey [F.J], held its inaugural meeting in the Council House on the 10th June, the Lord Mayor of Birmingham presiding and addressing the meeting on the objects of the Society. Among other speakers were the Earl of Plymouth [Hon. A.], who described the aims and methods of the London Society of which he is President; Professor Rothenstein, who spoke on the human side of the problem and of the little chance the creative side of English humanity had had during the past few generations as compared with the calls of business enterprise; and Mr. Neville Chamberlain, who expressed the belief that the mere existence of a society which insisted that beauty as well as utility should be considered in the outward aspect of the city would make people think of the artistic as well as the economic side of what they were producing or erecting, and that not only public authorities, but private individuals, would welcome a tribunal whose opinions on matters of taste would be listened to with respect, and suggesting that a beginning should be made with public buildings.

The Society is to consist of Birmingham citizens who see the necessity of stimulating a wider concern for the beauty of their city. The following is quoted from a Memorandum issued by the founders :—

Nothing in our modern civilisation has been more mischievously underestimated than the influence of the physical aspects of a town upon the spiritual and moral life of its community. People who resent the dirt and ugliness in which a commercialised society has environed its common life, are at present forced to make their own private refuges where they can indulge their instinct for decent and beautiful surroundings. This is evil; a citizen's home should be beautiful, but it should be so as a happy contribution of the individual to a beautiful city. Instead of making a tolerable seclusion for himself with what taste he can, the citizen ought to look upon it as an honourable obligation to make his home worthy of the city that sets a clean and noble standard of comeliness. At present it is impossible for him to do this, since his city is mean and unlovely.

The aim of the Birmingham Society will be always to

keep in mind this ideal of a regenerate city. Its members will realise that sweeping schemes of reconstruction cannot suddenly be executed, but they will remember, too, that such reconstruction, however slowly it may be achieved, is the only hope of making the city we live in a monument to anything but our carelessness and greed.

The Society will by every possible means bring public interest to bear upon all proposals put forward by public bodies and private owners for building; upon the laying out of open spaces and parks, and generally upon all matters concerned with the outward amenities of the City and district. It will not presume for itself peculiar authority in matters of taste, but it will insist that taste is a thing that matters, realising that more than half the blunders that are made in this direction, to the lasting harm and discredit of the community, are made by men to whom, since their aesthetic judgment is not called in question, it never occurs that such judgment is of any account one way or the other. Conscience in this thing would be stiffened at once by mere expression of public interest; not one man in a hundred who is about to commit an offence against taste would defend his own bad intention for ten minutes if it were intelligently and generously challenged at the outset.

It is noted that architects are well represented on the Council, and that the Technical Committee will consist of four or five Architects, two Civil Engineers, and two Surveyors, who will act as advisers to the City authorities on all matters connected with City improvements.

Exhibition of Town Planning Drawings at Birmingham.

The Birmingham Architectural Association are holding an exhibition of town planning drawings at the Galleries of the Society of Artists, New Street, from Monday, 3rd June, to Saturday, 22nd June, both days inclusive. The prospectus states :—

"No charge is made for admission, as it is the intention of the Association to give as wide publicity as possible to the work on view, and especially to the general public, for whom the subject has become of great importance. Birmingham is about to develop town improvements of great magnitude, and the function of the architect in relation to the planning of towns is vital to all such schemes. A visit to the Exhibition will show at a glance that section of Town Planning in which architects, by their training, are supreme. The drawings on view are all of them interesting, and many of them very beautiful. They have been assembled at some cost and considerable difficulty, and it is hoped that the Birmingham public will take this opportunity of seeing what is being done elsewhere to improve convenience and amenity."

St. Olave's Church, Southwark.

The St. Olave's Church, Southwark, Bill was read a third time and passed the House of Lords on the 16th May, and is now before the House of Commons. It had been previously reported that the members of the Select Committee of the House of Lords had visited the church and had expressed the opinion that the church was useless and the churchyard derelict and disreputable. On the third reading a new clause was inserted to provide that the tower of the old church and a portion of its site and of the churchyard should be vested in the Metropolitan Public Gardens Association for an open space and a public approach thereto.

In the House of Commons on the 14th June, on the motion for the second reading, Captain Carr-Gomm moved the rejection of the Bill. He said the object of the Bishop

of Southwark was to devote the proceeds of the sale of the site for building purposes to the creation of a parish in some other part of the diocese where it was most needed. Under an arrangement made between the Bishop and the London County Council £5,000 of the proceeds was to be applied to the provision of an open space as near as possible to St Olave's. To that the Bermondsey Borough Council was opposed. They held that the churchyard should be turned into an open space for the benefit of the people of the immediate district.

Mr. Whitley, Chairman of Ways and Means, said he was informed that both the borough council and the County Council had lodged petitions to appear and state their case before a Committee of the House, and therefore this was pre-eminently a case where the House ought not to throw out the Bill. He strongly recommended the House to read the Bill a second time and send it upstairs to be examined by a competent Committee.

Mr. Burns supported this appeal, and urged the importance of retaining the burial ground as an open space. A piece of land 100 ft. square or 50 ft. square opposite the Tower, with the Monument and many other public objects in view, would give more enjoyment than ten times the area attached to such a place as Southwark Park. It seemed to him that all the authorities—moral, spiritual, ecclesiastical, and architectural—were on the side of Clause 9. The district concerned was less provided with parks and gardens in proportion to the population than any other in London.

Another member pointed out that this was the only site on a river frontage of $3\frac{1}{2}$ miles that was approachable by road. Elsewhere, from London Bridge to Deptford, the river could only be reached by tortuous back ways.

The motion was withdrawn and the Bill was read a second time.

A protest against the destruction of the church had been made on behalf of the Institute in the following letter which appeared in *The Times* of the 19th April:—

To the Editor of "The Times,"—

SIR.—Any appeal to public opinion upon a matter not directly connected with the tremendous events which involve our national existence is open to just criticism as untimely; but the extreme urgency of the occasion justifies us in asking you to publish our emphatic protest against the proposed demolition of St. Olave's, Southwark. On Wednesday next, the 24th inst., the House of Lords, at the instance of our ecclesiastical authorities, is to decide whether yet another City church shall share the fate of those already destroyed. Few concern themselves at present with any proceedings of Parliament save those which deal with the incidents of war; general and just resentment will be the greater when the irretrievable loss is perceived. We desire, therefore, to call the attention of all who are jealous of the beauty of London, and appreciate the historic buildings which are its characteristic feature, to this intended outrage.

It is not necessary here to expatiate on the merits of this gem of Flitcroft's designing, whose river front is familiar to all who pass over London Bridge. The value of our monuments is not to be judged merely by the use to which they can be put by those to whom they are entrusted; still less are their sites to be considered as financial assets, to be sold for commercial purposes at any profitable opportunity. They are the property of the nation, and the especial pride of London. In the case of St. Olave's, money—to whatever purpose it may be put—is

the sole reason for its demolition; the building is perfectly sound and its beauty unimpaired.

We talk much of London improvements, plan schemes for its embellishment, and preach the artistic education of the public, yet proceed to destroy the beautiful works we already possess. We declaim against the barbarians who shatter and burn the cathedrals of France under the pretext of military necessity, and are open to the biting rejoinder that English bishops will sell their own famous churches for the value of the ground they stand upon.

We are, Sir, your obedient servants,

HENRY T. HARE, President.

E. GUY DAWBER, Hon. Secretary.

When the Bill was before the House of Lords, the President, Mr. Henry T. Hare, submitted the following points for the consideration of Lord Muir-Mackenzie, Chairman of the Select Committee dealing with the matter:—

(1) The proposal for re-erecting the church on some other site, either wholly or in part, is virtually impracticable, or at least highly inadvisable. The design of the church is essentially that of a town or city church, hedged in and surrounded by secular buildings. The street frontage is entirely faced with stone, while that towards the river is mainly of brick with stone dressings. The western front is non-existent, abutting as it does upon an adjacent warehouse. For these reasons, among others, it would be most inappropriate to re-erect it on a site which did not reproduce the conditions under which it exists at present. Both on practical and aesthetic grounds such an experiment could not be otherwise than disastrous.

(2) The building as it stands at present is eminently suitable for use as an institute, mission house or club for the numerous workmen engaged in the vicinity. For this purpose it would lend itself almost without modification.

(3) No reason has been advanced for its removal which might not be urged with equal force in the case of almost all the City churches. Yet I venture to think that no authority would formulate such a policy for general adoption throughout the City.

These monuments of the past constitute a heritage, which each generation holds in trust, and which may not be destroyed without the most cogent reason, or necessity, and I trust it may yet be possible to avoid what is widely regarded as a disastrous course of action.

War Risks Insurance: Architects' and Surveyors' Fees.

The Secretary of the War Risks Insurance Office sends the following memorandum:—

Representations having been made to my Committee on the subject of an allowance for taking out quantities where no plans are necessary, the Committee have agreed, subject to the damage being such as, in their opinion, to necessitate professional services in connection with the reinstatement, to alter the terms of the allowances which may be deemed to be included in the insurance in the following manner:—

(a) In the case of structural damage necessitating the preparation of plans, whether these be prepared by an architect or surveyor ...	5 %
(b) In the case of other damage to buildings ...	2½ %
(c) When the damage exceeds £500 and the nature of the work requires quantities to be taken out—in addition to (a) or (b) ...	2½ %

The allowance under (c) will be made not only in cases where the damage exceeds £500 to an individual building, but where it exceeds £500 by one and the same raid, to two or more buildings belonging to the same owner or owners and insured by the same policy, and the quantities are taken out by the same architect or surveyor.

The new scale is not retrospective; it is applicable only to cases where the damage is agreed on and after this date.

Presentation to Mr. W. R. Davidge.

At a recent meeting of the Garden Cities and Town Planning Association Mr. W. R. Davidge [4.] was presented with a collection of town planning and allied literature in recognition of his services as Chairman of the Executive Committee of the Association, and also of his Australian Town Planning Lecture Tour. Mr. Ewart G. Culpin, the secretary, stated that the results of the tour which Mr. Davidge undertook were apparent in every Australian mail, where references were being made to the good accomplished. Mr. Davidge had started a work in Australasia which was still spreading, thanks to the efforts still being made by Mr. Charles C. Reade, the other emissary of the Association, who had remained in Australia as Town Planning Adviser to the South Australian Government. He mentioned that at the recent Australian Town Planning Exhibition and Conference the following resolution was passed:—That the Australian Town Planning Conference and Exhibition place on record its thanks to the Garden Cities and Town Planning Association of Great Britain for its splendid achievement in arranging for the Australasian Town Planning Tour, 1914–15. Mr. Davidge had travelled right through America and through Australia on the service of the Association, and in addition to that, had placed his very valuable professional services at their constant disposal. Mr. John E. Champney, in making the presentation, regretted the absence of Mr. Cecil Harmsworth, who was to have presided, but who was detained by Government business. He expressed the gratitude of all the members to Mr. Davidge for what he had done, but he thought possibly the greatest satisfaction to Mr. Davidge would be the fact that he had taken a great share in the starting of a new movement in a new continent, which might bring incalculable benefits to future generations there. Mr. Davidge, in reply, expressed the satisfaction which the work had given him, and the hope that the Association would continue to progress as astonishingly as it had done during the last year or two.

The Cape Institute of Architects.

The Council have been much gratified by the sympathy and loyalty to the parent body shown in the following letter addressed to the Secretary from one of the Overseas Allied Societies, the Cape Institute of Architects:—

*Markham's Buildings, Hout Street,
Cape Town, 25th March 1918.*

DEAR SIR,—Yours of the 31st January, enclosing cheque £5 5s. for "Refund" to hand. I am desired by the Council of the Cape Institute to return same to you and express their reasons for doing so. In these abnormal times, we in this country have so far not felt the effects of the War in anything like the same proportion that you have in the Old Country. Private work is still going on and most of our members are doing fairly well. Under these circumstances the Council have decided that the least they can do to help

the parent Institute and our professional brethren, is to return your contribution to this Institute, and to further state that they propose to adopt the same course during the continuance of the War. There is no doubt that my Council's action will be cordially endorsed at our annual meeting shortly to be held.—Yours faithfully,

T. A. DALGLEISH, *Secretary.*

The contribution in question is the amount refunded to the Cape Institute in respect of the subscriptions of members of that body who are also members of the R.I.B.A.

Attendances at Council and Standing Committee Meetings, July 1, 1917, to April 30, 1918.

COUNCIL (17 Meetings).

Henry T. Hare, President, 17; Sir John J. Burnet, LL.D., 0; Walter Cave, 9; J. Alfred Gotch, 2; Paul Waterhouse, 9; Thos. E. Collett, 0; Ernest Newton, A.R.A., 0; E. Guy Dawber, 13; S. D. Adshead, 6; Robert Atkinson, 8; T. Edwin Cooper, 6; H. P. Burke Downing, 12; G. Gilbert Scott, 4; George Hubbard, 11; J. J. Joass, 7; Arthur Keen, 13; H. V. Lanchester, 13; W. R. Lethaby, 10; A. G. R. Mackenzie, 6; D. Barclay Niven, 15; Andrew N. Prentice, 10; H. D. Searles-Wood, 15; F. M. Simpson, 8; John W. Simpson, 16; Percy S. Worthington, 1.

ASSOCIATE-MEMBERS.—Patrick Abercrombie, 2; H. W. Cubitt (on service), 0; W. R. Davidge, 9; L. Rome Guthrie (on service), 0; Herbert Shepherd, 16; Leslie Wilkinson (on service), 3.

REPRESENTATIVES OF ALLIED SOCIETIES.—R. Burns Dick, 0; J. B. Gass, 4; E. Percy Hinde, 1; Wm. Kaye-Parry, M.A., 0; Adam F. Watson, 2; John Watson, 0; Sir Frank W. Wills, 0.

REPRESENTATIVE OF THE ARCHITECTURAL ASSOCIATION.—H. M. Fletcher, 14.

STANDING COMMITTEES.

Art (6 Meetings).—Arthur Keen, 5; W. A. Forsyth, 4; Chas. E. Saylor, 5; Robert Atkinson, 0; Sir John J. Burnet, 0; E. Guy Dawber, 2; J. Alfred Gotch, 0; Ernest Newton, A.R.A., 0; Halsey Ricardo, 0; Sir Aston Webb, A.R.A., 0; G. Gilbert Scott, 0; H. S. East, 2; J. B. Fulton, 1; Sidney K. Greenslade, 0; J. E. Newberry, 4; W. A. Webb, 3; Walter Tapper, 1; Harry Redfern, 1; John W. Simpson, 0; J. J. Joass, 0; Harry Surr, 5.

Literature (3 Meetings).—Louis Ambler, 3; Detmar Blow, 0; Arthur T. Bolton, 1; Theodore Fyfe, 0; A. E. Richardson, 0; H. Heathcote Statham, 2; Arthur Stratton, 1; Paul Waterhouse, 0; H. H. Wigglesworth, 3; Patrick Abercrombie, 0; W. J. Davies, 3; F. R. Hiorns, 2; Stanley C. Ramsey, 0; Leslie Wilkinson, 1; H. G. Ibberson, 3; J. D. Crace, 2; Sir John J. Burnet, 0; H. M. Fletcher, 2; Brook Kitchen, 0.

Practice (9 Meetings).—W. H. Atkin-Berry, 8; Max Clarke, 7; H. P. Burke Downing, 3; Geo. Hubbard, 7; A. G. R. Mackenzie, 1; Alan E. Munby, 1; D. Barclay Niven, 6; W. Gilbee Scott, 5; A. Saxon Snell, 4; F. W. Troup, 5; H. V. Milnes Emerson, 4; Percival M. Fraser, 9; C. E. Hutchinson, 2; John H. Markham, 6; J. Douglas Scott, 4; A. Needham Wilson, 0; H. A. Satchell, 7; W. Henry White, 9; H. A. Saul, 2; Wm. Woodward, 3; F. A. Powell, 4.

Science (8 Meetings).—H. Percy Adams, 3; R. Stephen Ayling, 0; Horace Cheston, 6; A. O. Collard, 7; Alfred Conder, 6; W. E. Vernon Crompton, 5; Osborn C. Hills, 5; Geo. Hornblower, 5; Sydney Perks, 0; H. D. Searles-Wood, 4; R. J. Angel, 5; W. R. Davidge, 0; E. Stanley Hall, 0 (on service); Herbert Shepherd, 5; Digby L. Solomon, 6; E. A. Young, 3; B. J. Dicksee, 8; C. A. Daubney, 6; H. W. Barrows, 8; J. E. Franck, 5; W. Jacques, 4.

CORRESPONDENCE.

Mr. Henderson's "Byzantine Splendour."
Swan Cottage, Ridgeview Rd., Whetstone, N.20.

To the Editor, JOURNAL R.I.B.A.—

SIR,—If it is true, as some critics avow, that a picture when first we see it ought not to suggest the question, "What is it all about?" but only, "How beautiful it is!" then Mr. A. E. Henderson in his wonderfully able painting, "Byzantine Splendour," has certainly succeeded in achieving the latter effect. The first impression is that of an arranged and beautiful mosaic of colour, and it is only after other visits that we discover the painter's grasp of detail and knowledge of Byzantine architecture. In point of craftsmanship, and skill in the rendering of detail, and in real beauty of colour, I cannot but think Mr. Henderson is akin in spirit to the artists of the mediæval period. Mr. E. L. Hampshire's suggestion is a good one, that its right place is in one of our public picture galleries, as an example of a splendid architectural subject finely conceived and painted.

G. LL. MORRIS [Licentiate].

THE EXAMINATIONS.

The Final: Alternative Problems in Design.

Instructions to Candidates.

1. The drawings, which should preferably be on uniform sheets of paper of not less than Imperial size, must be sent to the Secretary of the Board of Architectural Education, Royal Institute of British Architects, 9 Conduit Street, W., on or before the dates specified below.

2. Each set of drawings must be signed by the author, AND HIS FULL NAME AND ADDRESS, and the name of the school, if any, in which the drawings have been prepared, must be attached thereto.

3. All designs, whether done in a school or not, must be accompanied by a declaration from the Student that the design is his own work and that the drawings have been wholly executed by him. In the preparation of the design the Student may profit by advice.

4. Drawings for subjects (a) are to have the shadows projected at an angle of 45° in line, monochrome, or colour. Drawings in subjects (b) are to be finished as working drawings. *Lettering on all drawings must be of a clear, scholarly, and unaffected character.*

Subject XL.

(a) A MEMORIAL PUBLIC FOUNTAIN: *Drawings*, plan and elevation to $\frac{1}{4}$ -inch scale with full-size details.

(b) FACTORY to hold 300 hands—in the London district—to conform to the Factory Act and to all local conditions. Buildings to contain engine house and general office, mess rooms for hands, and showroom, lavatory accommodation. Lifts for raw materials to top of building, packing room with due access to road and railway. Show possible extensions outside for future developments.

Subject XLI.

(a) ARTIST'S STUDIO AND HOUSE ON AN ISLAND IN A LAKE: *Drawings*, plans, elevation and section to $\frac{1}{4}$ -inch scale and 1 sheet of details to $\frac{1}{4}$ -inch scale.

(b) DAIRY FOR A LARGE COUNTRY HOUSE: *Drawings*, plan; 2 elevations, section to $\frac{1}{4}$ -inch scale with any details to $\frac{1}{4}$ -inch scale.

Subject XLII.

(a) The first floor of a CITY OFFICE is used for BOARD-ROOM, chairman's room, chairman's lavatory and staircase. Size of building between walls, 30 feet by 17 feet 6 inches. Building lighted front and back. Give plan and section to $\frac{1}{4}$ -inch scale, also section through board-room and staircase landing to 1-inch scale with full size details.

(b) A gent'l'man farmer has decided to build a PAIR OF COTTAGES for his head gardener and head stableman at a cost of about £500, the paid pre-war prices. Required plan, elevation and section to $\frac{1}{4}$ -inch scale, working drawings. Cube out the building and show how you work out the cost.

Dates for Submission of Designs in 1918-19.

	Subj. XL.	Subj. XLI.	Subj. XLII.
United Kingdom	31st Aug.	31st Oct.	31st Dec.
Johannesburg	31st Oct.	30th Dec.	28th Feb.
Melbourne	30th Nov.	31st Jan.	31st Mar.
Sydney	30th Nov.	31st Jan.	31st Mar.
Toronto	30th Sept.	30th Nov.	31st Jan.

OBITUARY.

Lieut. Roland Walter Lines [F.]—I have just seen in the current issue of the JOURNAL that Roland Walter Lines, Fellow of the Institute, and Lieut. of the Canadian Expeditionary Force, has been killed in action. I met Lines in the west of Canada about two years before the war, and while I was staying in Alberta I went in for one or two competitions with him with the idea of a future partnership. He was an extremely genial and kindly man, with a host of friends all through the west of Canada. He was a pupil in an office in the Midlands—in Birmingham, I think—and after practising for a year or two in this country, he went out to the west of Canada, where success came to him almost immediately. He was a man of undoubted talent, and had already built up one of the largest practices in the Western States. He was an all-round sportsman, and, as might have been anticipated, joined up very early in the war, and was given a commission in the Canadian Engineers. He will be missed by a very large circle of friends from the town of Edmonton in Alberta, where he practised, and in the west generally.—ARTHUR BARTLETT [F.], Lieut. R.E.S.

Lieut. George Francis Blackburne-Daniell, who was killed in action near Monchy on 24th April, 1917, was the eldest son of Mr. and Mrs. Blackburne-Daniell, of 19 Nevers Place, S.W. Born on 8th June, 1878, and educated at Marlborough and Cambridge, he served his articles with Sir Aston Webb. Late in 1903 he went to Egypt to join Mr. Somers Clarke and Dr. Sayce in an expedition to excavate some early Egyptian tombs at El-Kab. In 1906 he was appointed to a position in the Public Works Department of the Egyptian Civil Service. He remained in Egypt, doing at times much arduous and responsible work, until August, 1915, when he obtained a commission in the Royal Fusiliers, having volunteered for service early in the war. After a few months' training in England he left for France. During the winter of 1916-17 he worked chiefly at camps and railheads, frequently under fire, and in April, 1917, he joined his regiment in the advance from Arras. On the evening of April 24, while leading his men into action after the senior officer had been wounded, he was killed instantly by a shell. In a letter to his young widow his Captain wrote: "We all admired your husband immensely—not only for his own personality, but because of his pluck and grit in sticking to us through a very bad time, when many

far younger failed"; and another friend: "He had endeared himself to all, so that his loss is deeply felt in the battalion." He married in 1916, Mary, elder daughter of Mr. and Mrs. Eastwick, of Fyning Wood, Rogate, Sussex.

MINUTES.

At a General Meeting (Business) held Monday 10th June 1918 at 5.30 p.m.—Present: Mr. Henry T. Hare, President, in the Chair; 14 Fellows (including 10 members of the Council), 4 Associates, and 1 Hon. Associate, the Minutes of the Meeting held 6th May having been published in the JOURNAL were taken as read and signed as correct.

The Hon. Secretary announced that since the last Meeting notification had been received that the following members had been killed in action, viz.: 2nd Lieut. George Garrison Stone, R.E., Associate, elected 1910; Lieut. John Eric Reynolds, R.A.F., Student; Tom Williamson Hooley, Associate, elected 1896; Lieut. Joseph Charles Gladstone Davies, Associate, elected 1911; Alan Binning, Associate, elected 1911. On the motion of the Hon. Secretary, it was Resolved, that the Institute's deepest regret for the loss of these members be entered on the Minutes, and that a message of sympathy be conveyed to their nearest relatives.

The decease was also announced of Peroivall Currey, elected Associate 1880, Fellow 1888, for many years Hon. Secretary of the Architects' Benevolent Society, and it was Resolved, that the Institute do record its regret at his loss and that a vote of condolence be passed to his widow and family.

Further, the decease was announced of Thomas Kershaw, Associate 1895; Henry Thomas Gradon, Associate 1887; Arthur Nyton Peckham, Associate 1914; George Frederick Maskelyne Merriman, Licentiate, and Robert Willey, Associate 1871, Fellow 1880, Retired Fellow 1903.

Arthur John Stedman, Fellow, attending for the first time since his election, was formally admitted by the President.

The following were elected by show of hands:—

AS FELLOW.

HOPE: ARTHUR JOHN [Licentiate, passed the Qualifying Examination for membership].

AS HON. ASSOCIATE.

WEST: REV. GEORGE HERBERT, D.D. [Associate 1871-1917].

Mr. Herbert W. Wills [F.] in accordance with notice, moved the following resolution: "That this Meeting express disapprobation of the action of the Council in permitting a form to go out with their sanction in which the following clause occurs: 'Reasons (if any) for which you consider it to the National advantage that the building should be erected without delay,' and request the Council to inform the Ministry of Reconstruction that the R.I.B.A. is opposed to any form of war control of building operations being exercised after the declaration of peace."

Mr. George Hubbard, F.S.A. [F.] having seconded the motion, Mr. Herbert Shepherd [A.] pointed out that a question of management of the Institute being involved, the Meeting was insufficiently constituted to deal with the Resolution, By-laws being a minimum of 50 members.

The Hon. Secr. [A.] ruled that the objection was valid.

Mr. John W. Simpson [F.] explained that the action complained of by Mr. Wills was not the action of the Council but of the appointed representatives of the Council, the President, Mr. Paul Waterhouse, and himself, and proceeded to show that the form they were consulted upon had nothing to do with the question of control; that the latter question was considered later and that a statement published recently in the JOURNAL and professional Press showed that the Institute representatives were strongly opposed to control and advocated its abolition.

The President further explained the attitude of the Institute representatives, pointing out that they had not

committed themselves to any approval of control; further, that the question complained of did not imply that there would be control, its aim being merely to obtain certain information in case control should be found necessary.

Upon the motion of Mr. W. R. Davidge [A.], seconded by Mr. Shepherd, a resolution was then put and carried that the Meeting expresses its satisfaction with the explanations which had been given by the President and Mr. Simpson.

The President, before dissolving the Meeting, announced that the Council in the exercise of their powers conferred upon them by Clause 2 of the Royal Charter had at their Meeting that afternoon elected to the Fellowship Mr. Leslie Wilkinson [A.], who was leaving for Australia to take up his duties as Professor of Architecture at the University of Sydney, New South Wales.

The proceedings terminated at 8 p.m.

NOTICES.

Presentation of the Royal Gold Medal.

A GENERAL MEETING (ORDINARY) will be held Monday, 24th June 1918, at 5.30 p.m., for the following purposes:—

To read the Minutes of the General Meeting (Business) held Monday, 10th June 1918; formally to admit Members and Licentiates attending for the first time since their election.

To present the Royal Gold Medal for the promotion of Architecture, conferred by His Majesty the King, to Mr. Ernest Newton, A.R.A., Past President R.I.B.A., in recognition of the merit of his executed work.

The Associateship: Special War Regulations.

On the recommendation of the Board of Architectural Education the Council have granted temporary concessions to Students R.I.B.A. and others seeking to qualify for Associateship R.I.B.A. These concessions include:

(A) *Special War Exemption* for Students R.I.B.A. who have attained the age of 21 years, and (1) have passed the Intermediate Examination; or have passed through a full course at any of the Schools recognised by the R.I.B.A. and received certificates which give exemption from that examination, and (2) have served in some full-time employment in His Majesty's Forces during the war for a period of not less than two years, or have relinquished their commissions or been discharged from service after less than that period owing to wounds or other disability arising from or in such service.

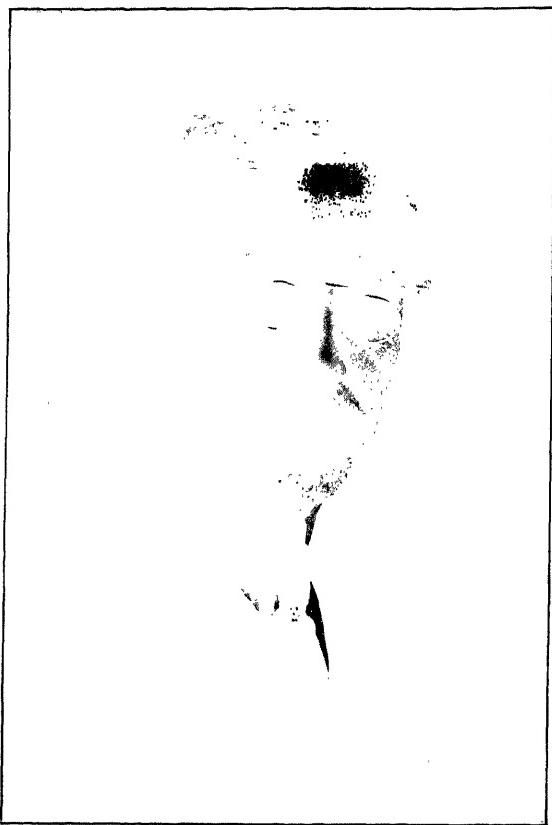
(B) *Special War Examination* open for three years after the declaration of peace to candidates who have attained the age of at least 21 years and are not eligible for, or desirous of availing themselves of, the Special War Exemption, and have served in some full-time employment in His Majesty's Forces during the war for a period of not less than two years, or have relinquished their commissions or been discharged from service after less than that period owing to wounds or other disability arising from or in such service.

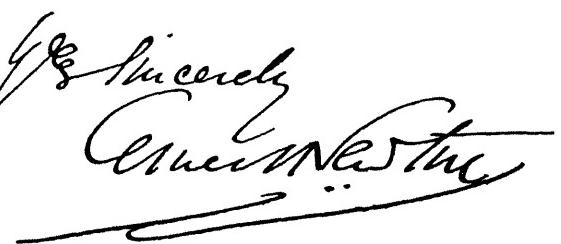
Further particulars of these concessions may be had from the Secretary R.I.B.A.

Licentiates and the Fellowship.

Particulars of the Examination of Licentiates wishing to qualify for Fellowship may be obtained from the Secretary.

FOR SALE by Officer's Widow, architect's chest in well-seasoned wood, fitted with drawers. Length 5 feet 2 inches, breadth 3 feet 2 inches, height 1 foot 10 inches. Also two architect's stools, leather seats. £10 accepted.—Apply "Box 155," 9 Conduit Street, W.



Yours sincerely

Ernest Newton

ERNEST NEWTON, A.R.A., *Past President R.I.B.A.*
ROYAL GOLD MEDALLIST 1918.



THE ROYAL GOLD MEDAL.

Presentation to Mr. ERNEST NEWTON, A.R.A., Past President R.I.B.A., at the General Meeting,* Monday, 24th June, 1918.

ADDRESS BY MR. HENRY T. HARE, *President*.

LADIES AND GENTLEMEN.—The presentation of the Royal Gold Medal has always been regarded as one of the most important of our annual functions. It is an occasion on which we are privileged, through the generosity of our patron His Majesty the King, to show our esteem of a brother architect and our appreciation of his accomplished work, and we have not in the past limited this honour to our own countrymen. We recognise the brotherhood of artists to be world-wide, and since the institution of the Royal Gold Medal in 1848 by Her Majesty Queen Victoria we have nominated as recipients almost as many architects and others of foreign countries as of our own.

The Royal Gold Medal is conferred by the Sovereign annually on a distinguished architect or man of science or letters whose work is judged to have tended to promote or facilitate the knowledge of architecture and the various branches of science connected therewith.

During the last three years the Medal has been awarded once to Scotland, once to France, and once to Canada, and on each occasion either through illness or the abnormal conditions induced by the War the recipient has been prevented from attending personally, and the presentation has been of necessity made to a representative. This has been a matter for great regret on our part, as it is always interesting to meet the man whom we delight to honour face to face, to come into direct contact with his personality, and to hear him speak on those matters which so intimately concern us.

Having sent the Medal out of England on two successive occasions, it was manifestly our duty this year to consider the claims of our home architects, and in proceeding to do so we had no difficulty or uncertainty in nominating our immediate Past-President, Mr. Ernest Newton, whose work for many years past has been familiar to us as embodying all that is best and most characteristic in English domestic architecture, the one branch of our art in which we consider we compare most favour-

* Among the distinguished company present at the meeting were Sir T. G. Jackson, Bart., R.A. [Royal Gold Medallist 1910], Sir Aston Webb, K.C.V.O., C.B., R.A. [Past President, Royal Gold Medallist 1905], Mr. Reginald Blomfield, R.A. [Past President, Royal Gold Medallist

1913], Mr. David Murray, R.A., Mr. Solomon J. Solomon, R.A. [Hon. A.], Mr. W. Robert Colton, A.R.A., Lady Webb, Mrs. Newton, and other ladies, and Mr. Newton's two sons, Captain H. A. Newton, R.G.A., and Major W. G. Newton, M.C., London Regiment [A.].

ably with other countries. We are gratified to have Mr. Newton here with us to-day to receive in person the Medal which we feel his accomplishments fully merit.

It is customary for the Chairman on these occasions to give a short sketch of the career of the Medallist, and I must of necessity follow that precedent, but will be as brief as possible. Mr. Newton was born in London in 1856 and was one of those fortunate young men to be articled to the late Mr. Norman Shaw, with whom he stayed some considerable time after the expiration of his pupilage. Intimate contact with that great master and his work over a period of years could not fail to exercise considerable influence over a man of Mr. Newton's sensitive temperament, and that influence is sufficiently evident in the works which we see illustrated around us, though in every case I think we may find the expression of strong individuality, and one could almost guess the authorship of one of Mr. Newton's buildings without looking for the signature. I remember many years ago, long before I had the pleasure of Mr. Newton's acquaintance, regarding his domestic work as being typical of what such work should be. In every case you will find the plans to be models of an English house most carefully studied in every detail.

As you will recognise from the numerous illustrations we see on the walls, Mr. Newton's practice has been widespread and various, and while the most important of his works are in what is known as the "Georgian" manner, he is equally successful in the more picturesque and characteristically English periods, while the Hither Green Church is a most excellent piece of late Gothic worthy to rank with the best work of our ecclesiastical architects. At the other extreme, I may instance the building in St. James's Street designed in collaboration with Mr. Norman Shaw, which is evidence of the wide range of his knowledge and abilities. We look forward to many more examples of his skill and ability when the arts of Peace are once more restored to us.

Mr. Newton was one of the founders of the Art Workers' Guild, an association of craftsmen and others which has exercised a very great and beneficial influence over a period of years over the crafts appertaining to architecture by fostering and encouraging an enthusiasm which had not previously existed.

Mr. Newton was elected Associate of the Royal Academy in 1911, and in due course we hope to see him proceed to full membership.

During the last two years Mr. Newton has been in charge of the Licensing of Buildings under the Defence of the Realm Act, and the entire profession is much indebted to him for the sympathetic and tactful manner in which he has carried out the duties of his office, which in less capable hands might have weighed much more heavily on us. The sound judgment required to weigh carefully the various interests and above all the national interest is not given to every man, and we have indeed been fortunate in these hard times to have Mr. Ernest Newton occupying so onerous a position. One is, however, constrained to hope that it may be possible within a reasonable time to terminate the office.

Mr. Newton's tenure of the office which I now have the honour to hold will be fresh in the minds of you all. In that position he was called upon to deal with the many serious and unprecedented difficulties suddenly thrust upon us by the outbreak of the war, and you are well aware how ably he met these calls upon his judgment and discretion. Although the ordinary activities of the Institute have been suspended during the last four years, I am quite safe in saying that the position of President of this Institute is more difficult and strenuous than in normal times, and it is not to be wondered at that Mr. Newton found it impossible to continue to bear the burden for yet another year, though we should have been pleased to see him still in the Chair.

I am sure you have now heard me long enough, and are anxious to hear what Mr. Newton has to say, so I will conclude by presenting the Royal Gold Medal formally to him, and expressing the wish that he may wear this and his other honours for many years, and that when normal times once more return to us we may continue to see year by year those pleasing works which we have always looked for with so much interest and appreciation.

MR. NEWTON'S REPLY.

MR. PRESIDENT, LADIES AND GENTLEMEN,—As our President has said, on the last three occasions the recipient of the Royal Gold Medal has not been able to accept it personally. He has thus been spared a rather trying ordeal, especially if he happens to be a modest man, unused to receiving publicly the outward and visible tokens of the esteem of his colleagues. It is, however, an ordeal that none of us would willingly shirk.

I remember many years ago looking at the list of Royal Gold Medallists with some awe and reverence, and I need not say how proud I am that my name should now be inscribed on that roll.

The President has alluded to the time I had the privilege of spending in Mr. Norman Shaw's office. Only those who had the immense advantage of close intimacy with Mr. Norman Shaw and with his work can know what it meant. Every drawing that he made, everything that he said and did, was an inspiration and a stimulus. He had an immense influence on all who came into contact with him, and an amazing power of bringing out all that was best in those who worked with him. I remember as if it were but yesterday, the day when, as a timid schoolboy of seventeen, knowing practically nothing of architecture, I took my appointed seat in the "modest" room in 30 Argyll Street which served as the draughtsmen's office, and started my career by copying, to the best of my ability, one of the wonderful working drawings for which Mr. Shaw was so famous.

It is not easy to lay down the lines on which future generations of architects are to be educated. The advantages of a definite and systematic training in a school are obvious, but I venture to hope that the equally great advantage of being guided and inspired by a great master will be considered in any scheme that may be decided upon. I admit that our system of education so far has been rather haphazard. We must not, however, be content with imparting knowledge, with training the hand, the eye, and the mind only, but must create the desire to exercise the knowledge and skill acquired by school training, and nothing is so certain to do this as close personal contact with a great architect and with his work.

Mr. Hare has mentioned most sympathetically the work I have been doing for the past two years in connection with building licences and the control of building, and this affords me an opportunity of thanking him for the valuable assistance he has given me in carrying out my arduous and difficult duties. My position is not one that anybody need envy, but whether I shall be judged to have filled it with success or not, I can, at any rate, say that I have tried to be fair, considerate, and practical, and I think I may, at least, claim that a very drastic Regulation has been administered without serious friction, and that all the operations that have had to be performed, even that of the lethal chamber, have been performed surgically, if not always quite painlessly.

Over two years' close connection with Ministries and Government Departments has brought home to me one thing very clearly, and that is the need for unity and organisation, and I hope that as soon as practicable after the War it may be possible to go so far, at any rate, in that direction as is provided for in the new Charter which now lies half born in a pigeonhole. Had it not been for the outbreak of war, this Charter would, I hope, have been in operation, and my predecessor, Mr. Blomfield, would have seen his strenuous work on behalf of architects crowned with success.

Before concluding, I should like to pay my tribute of affectionate respect to all those gallant young architects who, many of them on the threshold of a brilliant career, have laid down their lives for their country. Many of those who have worked with me either as pupils or assistants have been killed in action. Amongst them, Alick Horsnell, who seemed to be destined to great things, and who had already a considerable influence over his contemporaries. It may be some small consolation to those who proudly mourn their loss to know that we cherish their memories, and that although they have gone, they are not, and never will be, forgotten.

I must thank you, Mr. President, most sincerely, and through you my brother architects for the proof you have given me of your esteem in considering me worthy to be recommended as the recipient of the Royal Gold Medal, which has been rightly designated as the highest honour that the Institute has it in its power to confer. Believe me I am profoundly sensible of the honour, and much encouraged by it.

Prior to the presentation of the Medal, the following letters were read to the meeting by the Hon. Secretary, Mr. E. Guy Dawber :—

DEAR MR. SECRETARY,—My hope is to be at the ceremony of investiture, but a special appointment may delay me.

Please tell Ernest Newton how gladly he is welcomed into the list of Royal Gold Medallists. He raises the average of merit found there. It is a very happy selection for Royal favour after the continuous hard work that our friend has done with consideration and care in a Department of the State. He has been very helpful in his aid to architects in this time of stress, and all with a self-effacing modesty. Apart from all this is the solid claim to honours on the ground of his work as an architect of distinction. His beautiful work has always the charm of suitability, with a refined grace, enriching the land that he touches with his wand.

May he long live to spread his work and to enjoy his honours in health and prosperity!—Yours very truly,

ERNEST GEORGE [F.]

DEAR MR. PRESIDENT,—To my very great regret I am prevented from being present this afternoon. May I say in writing a few words I should have wished to say in speech. To praise the work of Mr. Newton within the walls of the Institute, and among his friends there, would be superfluous on my part; and will, in any case, be better done by abler critics; but I should like to join in giving expression to the self-congratulation we may all feel in the choice which we have this year made.

Mr. Newton's work as an architect is best described—like other things of great excellence—in negative terms. The absence in it of those lapses to which most designers are liable is the mark of its high level of success. It is characterised always by that restraint which is the summit of refinement. He keeps always at the top of his form, and exhibits in his designs that apparent absence of effort which is always the result of great strength.

In choosing a Gold Medallist we look to a man's work, not to his personal character or his powers of good fellowship, but at the happy moment when the Medal is hung on his shoulders we may express in our acclamations something more than our mere official appreciation of his achievements in or for architecture. In applauding Ernest Newton we give voice not merely to admiration for an artist but congratulations to a very good friend of this Institute, amazement at four recent years of very exceptional toil carried through

with invariable good nature; and, lastly, we express what I can only call by the simple name of affection.—Yours sincerely,

PAUL WATERHOUSE [F.]

DEAR MR. PRESIDENT,—It is with much regret that I am unavoidably absent to-day at the presentation of the Royal Gold Medal to Mr. Newton. At a time when Mr. Newton was in his cradle John Ruskin was delivering his lecture at Lyons Hall before the members of the Architectural Association on "The Influence of Imagination upon Architecture." A considerable district in West Kent to-day shows gratefully the results of Mr. Newton's applied imaginative influence in the development of domestic architecture, and it is to be hoped that he may be spared to carry on that influence and to extend it for the benefit of that section of the community which up to the present has enjoyed but little of the influences for uplift which well-designed houses can promote.—Yours faithfully,

FRANCIS HOOPER [F.]

Sir ASTON WEBB, K.C.V.O., C.B., R.A. [F.], rising at the President's invitation, said: I remember when Sir Laurence Alma Tadema was painting the portrait of one of our Presidents—George Aitchison—he remarked to me that "one of the greatest pleasures in life was to paint the portrait of a friend." And, Sir, you have kindly asked me to add a touch or two to your portrait of our friend. I feel quite sure that the portrait-painters, of whom there are many here to-day, would not all appreciate that another artist should add touches to their work—(laughter)—and I greatly fear that any little touches I may add with my bungling fingers will spoil your picture. I should like, however, to take the opportunity of congratulating very heartily my friend Mr. Ernest Newton. Perhaps the 24th of June, 1918, will be remembered as the day we gave the Gold Medal to Mr. Ernest Newton and also the day when the Italians drove the Austrians back over the Piave and saved Venice and those dear Northern Italian towns which we all know and are so fond of. Of our friends many excite among us admiration, others excite respect, others affection. But our late President excites among us all those emotions, and especially our affection. (Applause.) We find also just that quality in his work that we find in the man himself. The houses that we see depicted on these walls to-day we feel are lovable houses, ones we should like to live in. We can see them nestling down in a corner, or in the hollow of the hill, or by the river, or wherever it is, just as if they had grown in that particular place. They seem to speak of love and

affection, both of the man who has built them and of the people who occupy them. There was another point, Sir, which you mentioned, and which I think Mr. Newton must feel very proud of, and that is his association with Mr. Norman Shaw. Of all the pupils Mr. Shaw had, Mr. Newton seems to have been picked out by him to collaborate with him, and, finally, was chosen as the one on whom his mantle should fall. That is a distinction that any man might be proud of. I did not know Mr. Shaw to anything like the extent that many did who are present here to-day; but of course I did know him, and I knew him as a great artist, and also as a very keen, shrewd, hardy Scotchman, and the combination of those qualities constitutes it a great compliment that Mr. Newton should have been entrusted with the completion of his works. With regard to Mr. Newton's time as President, I think, Sir, that we ought to say a word of congratulation, not only to him, but to Mrs. Newton also. (Applause.) We all know, Sir, that any success we achieve in life is largely due to our wives, and therefore Mrs. Newton has a very large share in the fact that Mr. Newton has to-day received the Gold Medal. It is also a very fortunate coincidence that both their sons are here to-day with them. An honour to a father is very pleasant to a son, and I am sure they appreciate it very much. I, looking forward, can quite imagine a day some 25 or 30 years hence when not we, but our successors, may find themselves in a grander room than this, with a larger ceremony, conferring a similar honour upon one of his sons. I hope that it may be so. Mr. Newton's presidency was, of course, terribly overshadowed by the war. He had all the work of it and none of the pleasure. I remember when I was President of the Institute that I used to dine out three or four times every week, and although of course I did it entirely for the good of the Institute—(laughter)—I am bound to say I enjoyed it very much; and, what was more wonderful still, at the end of two years I was none the worse for it. All those delights have been denied Mr. Newton. Again, as we know, half-way through his time he was taken from the calm and dignity of Gray's Inn to the storm of a Government office, and, what I think must be more trying still, a newly developed Government office, which has not done developing even yet. I do hope, however, that when peace comes Mr. Newton will put an absolute stopper on his Department, take up his hat, and go

back to Gray's Inn—(Hear, hear)—and that, as we have assembled to-day to recognise him as a most distinguished member of our profession, so the State at that time will recognise the skill and ability with which he has carried on one of the most difficult jobs that a President of our Institute could possibly be called upon to perform. (Applause.)

Mr. REGINALD BLOMFIELD, R.A. [F.], said he should like to support Sir Aston Webb's expression of appreciation. It had been a great pleasure to him to come and see this honour conferred upon his friend Ernest Newton. No man had won the honour more deservedly. As Sir Aston Webb said, Mr. Newton had had a most difficult time as President of the Institute: he had had all the troubles of the position, but none of the cakes. He hoped, however, that he would, in due course, get the reward of his arduous duties, and that he might be spared to do a great deal more of the work which was such a delight to them all.

Mr. Newton has sent the following letters for publication:—

To Ernest Newton, Esq.,—

MY DEAR NEWTON,—Many thanks for yours of the 21st. I much regret that a prior engagement for this evening makes it impossible for me to have the pleasure of being present at the Institute on the occasion of the Presentation of the Royal Gold Medal to yourself. My inability to attend is a great disappointment to me.—With sincere respects, Yours faithfully,

LEVERHULME [Hon. A.].

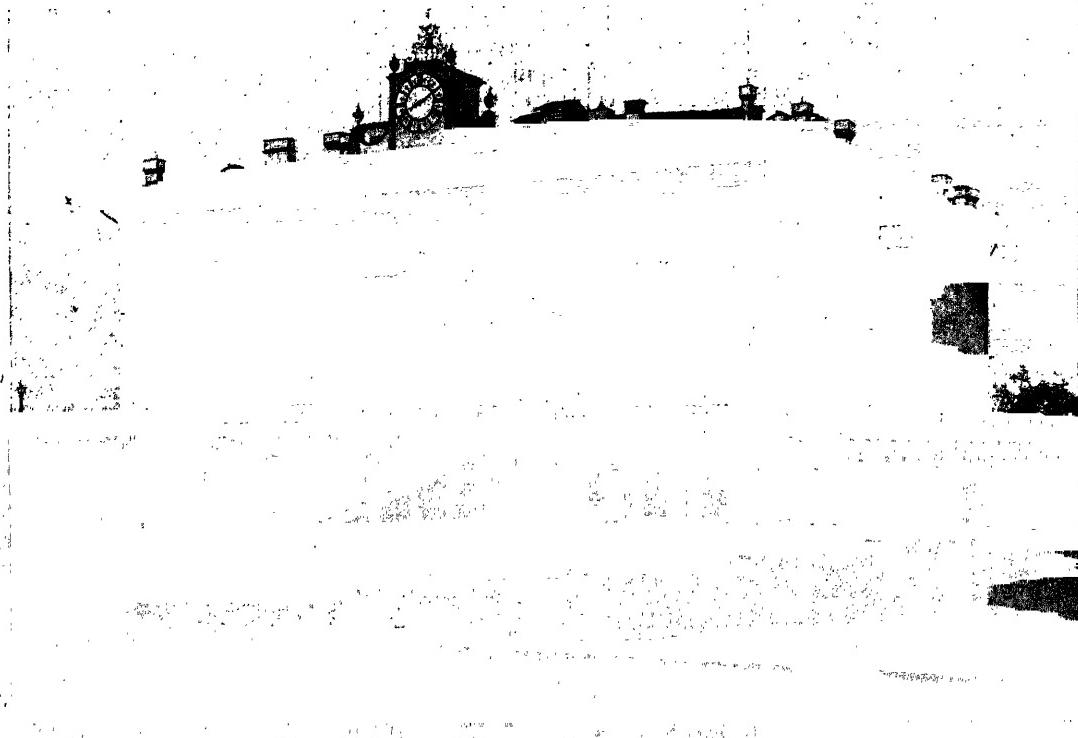
To Ernest Newton, Esq., A.R.A., Past President R.I.B.A.,—

DEAR SIR,—Will you permit me on behalf of the Society of Architects to offer you our very hearty congratulations on the honour which you have received as the recipient of the Royal Gold Medal.

The occasion is one which will give the greatest possible satisfaction to every architect, whether he is a member of the Institute or not. All will be glad that the choice of the Institute has fallen upon an architect of such distinction as yourself, and one who has rendered such valuable service not only to the profession, but to the community, particularly during the war.—Yours faithfully,

C. McARTHUR BUTLER
(Secretary, Society of Architects).





ROYAL VILLA OF POGGIO A CAJANO, NEAR FLORENCE.

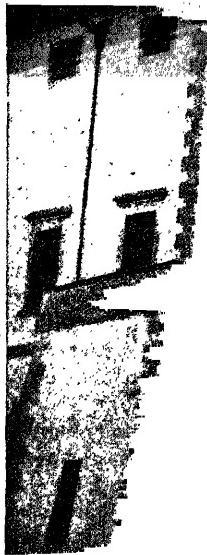
THE ITALIAN AT HOME.

THE recent book by Mr. Guy Lowell, containing photographs and sketches of the smaller villas and farmhouses of Italy, opens up a new vision of the Renaissance. It deals with the country estate in all its parts—home, garden, terraces, with outlying agricultural buildings—and offers material of especial interest to students of building. The war has closed the road to Italy. No longer is it possible to follow in the steps of Schueلت who in 1791 explored the Campagna and made entrancing sketches of ruined villas that no longer exist; but from the pages of Mr. Lowell's book and the volume of Schueلت's engravings* can be obtained a glimpse of the intimate life of the Italian from the time of Giovanni Boccacio to the present day. No account of Italian art can be deemed complete that does not treat of villas and gardens, yet, singularly enough, this important branch has in the main been left to the amateur and the dilettante to describe.

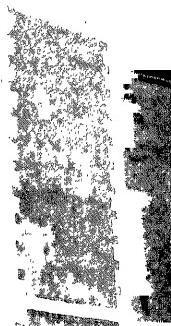
The smaller Italian villa should appeal with peculiar congruity and point to Englishmen; the simple designs offer many suggestions for adaptation to our northern climate, not so much in the direction of plan formation or in detail, as in the handling of plain surfaces and the exquisite proportioning of parts. The keen eye of Inigo Jones must have noted the singular contrasts of these minor products of the period of the

senses and understanding, and every English gentleman who travelled through the Peninsula in the late eighteenth century according to the directions given in the road book published by Battista Sassi beguiled his journey from the windows of the travelling carriage by taking in the outlines of the farms and posthouses encountered by side of the highway. There is a woodcut of such a triumphal progress forming the frontispiece to Sassi's quarto edition of 1773, showing the delights of travelling in the wake of four horses with postillions and outriders, and many neglected diaries in the possession of old families contain curious references to the inns and scenery. Richard Wilson's sketches in Italy show an occasional glimpse of rural life in the eighteenth century, and Cockerell, on his return from Greece, made line diagrams of the important towns he passed through in addition to the pastime of studying poetry in the seclusion of the chaise. Other pencils, however, were busy on the subject, for Costa produced his folio volume, *Delizie del fiume Brenta*, in 1756, and the Frenchman Schueلت was busy in the environs of Rome when the Terror held Paris, although his book did not make its appearance till thirty years later. Percier followed this little-known draughtsman in 1809 with *Célèbres Maisons de Plaisance de Rome*, and Bouchet's engravings of La Villa Pia were not issued to the public until 1837. Letarouilly, contrary to expectation, touches only the fringe of the subject, and devotes some plates to the Villa Papa Giulio and others, such as the Medici at

* *Recueil d'Architecture en Italie.* Fo. 1821.



ARTIMINO.



ARTIMINO.

Rome. Since his day it has been left for American writers to investigate the villas surrounding Florence and on the Brenta, and to re-discover Schuel's book, with obvious advantage to domestic building in America.*

Italy and England, it is true, differ in nearly every aspect of life, not only in history and religion but in nature and the physiognomy of men. Perhaps it is on this account that the contrasts in Italy make such a direct claim to insular notice, for at all periods during the past three centuries English artists have acknowledged their indebtedness for inspiration gleaned in the land of sunshine. The Englishman traversing Italy for the first time becomes enamoured of the mellowed tone of towns and villages, the antique look of everything, the similarity of tiled roofs, the belfries, shuttered windows, and warmth of architectural display. Henceforth for him the curiosity is increased, he breathes a rarer atmosphere, and labours incessantly to record his impressions for future reference.

The novelty of Italy may be diminished as he becomes familiar with the masterpieces of the past—it is doubtful if it is ever forgotten, perhaps in a subconscious way it returns with increased rareness, and engenders those moments of divine afflatus such as enabled Barry to evolve the Travellers' Club.

The palaces of Italy are familiar to most Englishmen; not so the simple domestic architecture which is a feature of the countryside, standing in groves of orange and lemon trees or silhouetted against a background of poplars: the venerable character of some with broad walls pierced harmoniously with openings as necessity ordered and skill devised, roofs of low pitch, trabeated and arcuated loggias, balconies reticently expressed in wrought iron, and, moreover, gardens growing out of the building to which they are ancillary and homogeneous. The older buildings of England are different, especially those in the setting of the English landscape. Brick, stone, and timber form the chief part of their construction, the windows dominate and seem all-important, the roofs are of steep pitch, in some cases the permanent aspect appears cold and forbidding; they are the product of a tradition which has been worked upon unceasingly; even the later arrivals on the scene have inherited an overbearing look. It is not possible to transport the idioms of Italian expression in building to the counties of England, but much could be done to blend some part of their grace with modern ideas of artistic handling. This truth remains, there is a bond of sympathy between the architectural aspirations of the two nations which is capable of interpretation to the benefit of our own eclectic methods. We may not agree with every example of Italian art, there is danger in pinning our faith to any particular phase, but the initiatory idea is what we should strive to emulate, the instinct of per-

ception, good taste and reasonableness which is rarely absent from the minor Italian works of the sixteenth and seventeenth centuries.

Turning over the pages of Mr. Lowell's book one experiences a sense of exhilaration; there is no short method available to enable one to master the intricacies of the subject he presents other than to take pencil and paper and laboriously sketch the buildings he displays for enjoyment. We find Schuel's measured drawings reappearing under the caressing touch of a modern crayon, ranging from the small house at Tivoli to the little Casino at Caprarola, built by Vignola. There are drawings of the terraces and pavilions in the gardens of the Villa Farnesina, a house on the banks of the Tiber, and villas near Rome and Tivoli, while the large plates give reproductions of plans from Percier's perfect volume.

Our chief concern is with the photographs, and these must be described in order of presentation. They do not appear in historic sequence—that is a trifling matter—but are shown in much the same order as the author discovered them. The first three plates are given to simple farmhouses in the neighbourhood of Florence, which have the merit of being unarchitectural in the sense that in each instance the character is direct and entirely free from self-consciousness. Seven plates are devoted to Artimino or the Villa Ferdinando, built for Ferdinando Duke of Tuscany in 1594. The story is told that the duke halted near the site during one of his hunting days, and noticing the splendid outlook across the valley commanded his architect, Bernardo Buontalenti, to design a villa there. Our author speaks regretfully of the present state of the mansion with its surrounding buildings, but his regard for this delightful estate will be generally shared.

The subject of the Villa Artimino prepares the way for a discussion of the career of its architect, Buontalenti (Bernardo Timante), whose fame as a designer has been somewhat overshadowed owing to the attention of students of Italian history being mainly given to the better known architects of Florence, Venice, and Rome. In Ruggieri's book, which was published at Florence in 1755, several specimens of his detail are shown, but no comprehensive survey of his superior works. Bernardo Buontalenti, we are told, was of Florentine birth, having been born in that city in 1535 or 1536. Particulars of his early career are not forthcoming, but he appears to have acquired some renown as a deviser of stage settings and theatrical appliances, which earned for him the name Dalle Girandole. At the early age of fifteen, it is said, he attracted the notice of Cosimo I., who was created Grand Duke of Tuscany in 1570, and was appointed drawing master to his son Francisco. His connection with the powerful Medici family in a purely architectural capacity begins with the patronage of Francesco, for he travelled to Spain with this patron in 1563, and when the latter was Vice-Duke built a

* Mr. Charles Platt's executed works bear witness to this.

country residence for him six years later called Pratolino, of which Ruggiere gives details. A few years later he was engaged on the Casino di San Marco, a work followed by designs in preparation for the baptism of his patron's infant son. His future career as an architect was now certain, although it is recorded that he died in poverty in 1608. For some considerable time Buontalenti had charge of all affairs connected with public events such as exhibitions, arrangements for funerals, and the control of stage settings. He was also appointed superintendent of the civil and military buildings. For Francesco he designed the stanze or apartment over the Mint, the door under the vault of the Uffizi, and an important doorway to the Palazzo Vecchio, as well as additions to this palace on the eastern side. Among a long list of minor works appears a corridor half a mile long from the Uffizi Nuove to the Pitti Palace, and additions to the state apartments of that palace as well as a grotto in the Boboli gardens. The year 1590 saw him at the zenith of his activity, for he was engaged on the villas of Capponi (illustrated on Plate 49 in Mr. Lowell's book), of Magia now called Amati, and of Artimino or Ferdinando completed in 1594, which will be described later. At this period he was entrusted with the reparation of the villas called Petraia and Castello (the former is shown on Plate 60), besides many other buildings in Florence, including additions to the famous palaces.

At the close of the sixteenth century Buontalenti occupied a high position in Florence as an architect of exceptional ability—which led to his being consulted as a military engineer at Naples and Leghorn, as well as at Prato and Pistoja. In Florence he wielded considerable influence over the studies of his contemporaries, and was one of the first Italian architects to instal pupils under his own roof. Among the pupils were the following: His son, Francisco, who completed some of his father's works; Giulio Parigi; and the noted Gherardo Silvani, who made a big reputation in the seventeenth century.

The villa of Artimino must be recognised as an instance of Buontalenti's best domestic manner, if only for its reposeful quality and direct simplicity. Ferdinand I., Grand Duke of Tuscany, for whom this country seat was planned, succeeded to the title in 1574. Twenty years, however, elapsed before the incident occurred that led to his choosing the site in a moment of impulse. Artimino stands on rising ground, and is approached by a direct road which enables the whole of its exquisitely proportioned front to be taken in at a glance. From a distance the harmonious grouping of the windows about the recessed loggia and the faultless disposition of void to solid proclaim it to be the residence of a man of taste and distinction. In aspect it is eminently Tuscan, and appears to grow out of the countryside, to be, in fact, a product of the landscape, and while expressing the dignity of its lineage, does not disdain to rub shoulders with the simpler habitations of the small farmers and the

peasantry. What would one not concede for the opportunity to design in similar vein, unfettered by such restrictions as the over-windowing of the walls which mar the majority of modern English houses. We miss the English system of grouping the chimney stacks, but we do not cavil at the miscellaneous flues of varied shape that assert themselves through the mellowed tiling; they are so informal, and so delightfully Italian. (See illustration of Front.) A nearer view of Artimino justifies further praise. We can study the charming indifference of the designer in the way he connects the entrance steps over a ramp to the level of the loggia, the slender columns of which carry on the feeling of lightness most gracefully and blend with the flat walling both easily and naturally. If the details of the back and front elevations are consulted this seeming insouciance will be seen to be the work of an artist who could interpret realities with that disinterested attachment which begets masterpieces. (See illustration.)

Judging from Ruggieri's coarse line drawings of Buontalenti's work, one would never expect to find the refinement of detail so carefully and judiciously studied as it is at Artimino. Ruggieri, perhaps unintentionally, maligned Buontalenti, and we owe him a grudge for it. The principal rooms of the villa are vaulted in a way peculiar to Florentine practice, ornament being conspicuous by its absence, and architectural effect gained solely through the agency of geometry. As these apartments are furnished today in perfect taste, some idea of what they were like when the walls were rich with paintings by Raphael Titian, and Botticelli can be conjured up. Leaving the villa and examining the neighbouring buildings of the home farm, additional respect for the architect's care must be forthcoming; for, although the purpose of the latter was subordinate to that of the residence, some part at least of the scale and simple magnificence of the latter was allowed to descend upon them. (See illustration.)

Two hours' journey by steam tram from Florence is another Medici villa, the Poggio a Cajano, which was built for Lorenzo the Magnificent, by whom it is not stated, although it has been attributed to Giulio di San Gallo.

If Artimino is distinguished for its domestic simplicity, the claims of Poggio a Cajano without question are those of rich simplicity, both from the standpoint of proportion and refinement. All that perception, taste, skill, and imagination could devise appear in ordered sequence in the assemblage of attributes that produce the royal character of this villa. How delightfully the clock turret sits above the eaves, how reticent is the detail of the pedimented loggia, and with what abandon, yet really with consummate skill the shuttered windows have been arranged. Yet this elegant villa would be almost commonplace without the approach staircase and the conventional arched plateau on which it stands.

It is strange that such a complete design should

have escaped the attention of architectural historians, but this comes of the obsession for limiting research to definite periods, and refusing to adopt a broad view of the truths of building irrespective of date. Only a man of taste and a patron of the arts, such as Lorenzo was, could live in accordance with the unaffected grandeur of this villa. To describe it is a pleasure, to own it would be a dream.

But to continue with an appreciation of Mr. Lowell's selection of villas and farmhouses, which is the excuse for this article. The reader should refer to Plate 13, which shows simple houses above Florence, on the road to Fiesole and north of Treviso, all of which in a minor key reflect the taste of Tuscany at the close of the sixteenth century. Plate 14 shows types of doorways, gates, and external staircases in harled masonry; Plate 15 is similar. The gardens and grounds and the Villa Lante are pictorially described on Plates 17-23. These works have been ascribed to Giulio Romano and Vignola. Lante is perhaps the most delightfully situated villa in Italy, and the design shows the hand of a master. Vignola's design for the Villa di Papa Giulio is well known through the engravings of Letarouilly and an excellent eighteenth-century monograph, and need not be described again. The gardens and Villa at Castello, shown on Plates 28-29, have already been mentioned in connection with the career of Buontalenti. The chief sculptors of the time worked on the features of the gardens, including Piero di Cosimo, Bronzino, Pontormo, and Il Tribolo. The engineer of the waterworks was Piero da S. Casciano. The Villa Gamberaia, near Florence, next demands attention. One author has done ample justice to its beauties in two plates. We are informed that the name of Gamberaia first occurs in a document at the Badia of Florence containing a transfer dated 1398 to Giovanni di Benozzi. Late in the sixteenth century Gamberaia was bought by Giovanni Gamberelli, who effected many improvements, so that the place came to be known as the Palagio of Gamberaia. No written description of this beautiful villa could possibly be adequate, so the reader must form his own conclusions from the illustrations. Another fine villa near Florence is the Bombicci, two views of which appear on Plates 34 and 35 of Mr. Lowell's book.

We now come to the Villa Caronia (see illustration) which crowns a hill outside Florence. It has fortunately fallen into good hands, and is occupied at the present time by an American architect. Here the double loggia with the accompanying terraces to the walled gardens and the gable eaves, recalling the English chinoiseries of the eighteenth century, makes up an attractive picture of refinement and homely taste. The illustrations selected by Mr. Lowell comprise interior views which have been sympathetically furnished, and thus permit of another glance into the customs of a bygone age. The views of the Villa Medici at Florence show the beautiful projecting loggia, with the richly decorated ceiling to the upper

portion fortunately in an excellent state of preservation. And then follows plate after plate showing farmhouses and villas, doorways and terraces, modern tenements near Como, with rich profusion, that only space prevents describing in full.

Several of the larger and better-known villas have been included, such as the Villa Aldobrandini Frascati, the Villa Medici, and the Villa Albani at Rome, the Villa Falconieri, Frascati, and the Villa Pia so adequately dealt with in Bouchet's miniature engravings. Four plates are given respectively to the derelict Villa Madama and to the Villa Borghese, including the casino in the grounds. There are illustrations, Plates 101 and 102, of a small villa on the Janiculum, near Rome, which provides matter for reflection, especially in connection with modern English practice. Plate 104 shows the cliff-like Villa d'Este at Tivoli with its subsidiary terracing, and Plate 106 takes us back to Florence.

Mr. Martin Shaw Briggs has already dealt with the villas on the Brenta in the pages of the *Architectural Review*, and Mr. Lowell, who covers the ground for the second time, refers to this, but he considerably includes new and interesting subjects, as well as a side view of Palladio's Villa Malcontenta. Our own sympathies will be further excited with the grouping of the farm buildings in the Emilia, the villa near Lucca, with the loggia on the flat roof, the arcaded farmhouse south of Lucca, the fanciful house outside Treviso, or that on the Padua Venice Road (see illustration). Mr. Lowell's series of illustrations concludes with a farmhouse at Murelles Venetia and the hut of a peasant in the same district.

The survey is at last complete, the cataloguing of dates and names is finished in so far as the subject has been discussed, nothing remains but to return the book to the library shelves, and subconsciously retain an impression of this picture of Italian home life arranged in such soft tints by the author.

This fact remains for consideration : in spite of the distance of Italy from England—not forgetting the existence of chivalrous France, from whence we have obtained inspiration at all periods—the Englishman realises that a bond of sympathy—call it sentiment if you like—exists between the two peoples. For various reasons the architecture of the two countries stands aloof. We can take ideas from Italy because of our respect and intimacy with her customs, but we do not literally transport her masterpieces of architecture and dump them down in our own land. The Italians have had a different upbringing, they are connected by family ties to the old Romans, and have a different understanding of the classic spirit. Their eyes cannot always appreciate the pious reticence and climatic idiosyncrasies of the buildings of our climate ; they have little to learn from us, but they have always been ready to give of their best.

The American approaches Italy with much the same purpose as ourselves, but his motive has more of the practical in it, for the climate in America

admits of such interpretations of Italian art as Mr. Charles Platt can give. This remark must be qualified with a reservation, for there is a tendency in some quarters in America to impart undue richness to simple Italian examples which is rarely to be encountered among the minor idylls of the Renaissance.

After the war English architects will again be attracted by the magnetism of Italy, there to acquaint themselves with the warmth and humanity of the buildings, not the least incentive being a study of the specimens off the beaten track. They will imbibe theories of detail and proportion with avidity, and although they will mark well the charm of the language, if they are wise they will not endeavour to do more than merge its beauty with the peculiarities of their own tongue. For like the eighteenth-century painters, who studied Nature through the conventions of the earlier masters, they, too, will appreciate the lessons of the antique more thoroughly through the medium of Italian spectacles.

A. E. RICHARDSON [F.]

REVIEWS.

TOWN PLANNING IN MADRAS.

A Review of the Conditions and Requirements of City Improvement and Development in the Madras Presidency, by H. V. Lanchester, F.R.I.B.A., M.T.P.I., etc. (Printed for the Government of Madras.)

Mr. Lanchester has done good work for the Empire in advancing the cause of Town Planning in India, and this volume, printed for the Government of Madras, contains a review of the conditions of city improvement and development especially adapted to Indian requirements.

The strength of India lies in its traditions, and any new movement must necessarily be influenced by and to some extent take its shape from these traditions. Overcrowding in the cities, as Mr. Lanchester says, is in India not based solely on economic grounds, but largely on social ones. A given area is occupied by those of one religion, caste, or trade. Owing to the contiguity of other castes or trades, this area is unable to expand and increased provision can only be made by packing houses closer on the ground. Again, the division of property among members of a family tends in the same direction. What was once a good and suitable house is divided and subdivided so that it ceases to be either healthy or convenient; the court is built over and rooms are added on without proper light and air. Under such conditions physique deteriorates, and rather than undertake a little extra exertion in travelling, workers will pack themselves into inadequate accommodation because near their work, or sometimes even because near a busy and cheerful locality. Many Indians have become inveterate town dwellers, and to a large extent they demand to be near busy bazaars and will submit to a great deal of overcrowding rather than remove to more suitable

quarters. Under such conditions the policy of providing a counter-attraction in the way of pleasantly arranged building areas with every possible convenience and ready means of access is undoubtedly a wise one. Even then the problem is difficult, but there are signs of an increasing appreciation of a more open form of development.

Both Government and municipal officials throughout India are becoming keenly interested in the problems of town planning, and the work of Mr. Lanchester, Professor Geddes, and other experts is already bearing considerable fruit.

Mr. Lanchester's lectures in Madras, on which this book is based, were intended to give a broad view of the general principles of town planning and their application to the economic and social conditions in Madras. Commencing with the historical outlines of the subject, both in European and Indian cities, Mr. Lanchester shows clearly that all town planning proposals must be preceded by a careful and painstaking survey of the individual conditions and economic needs of the city.

The chapter dealing with the Civic Survey will be of particular value to officials and others in relation to the future of Indian cities. In this way only can the best results be obtained. In the past the development of the small towns of India has to a large extent followed the line of the water supply, which in India is generally obtained from shallow reservoirs or "tanks." A collection of small dwellings naturally groups itself round its tank, and in process of time it becomes necessary to move higher up to form another "tank," and so on. The beauty of these stretches of water surrounded by houses is considerable, and in a hot climate the tanks are a real delight, though not always over-sanitary. The growth of industries and occupations under varying conditions should be carefully studied by all students of civics and sociological conditions.

As to the type of houses to be encouraged, Mr. Lanchester is of opinion that the Indian house is a very good one, but that there is not generally sufficient land allotted to it. The one-storey houses of Southern India occupy so much ground space that there is room for little or no garden. It is fortunate, though, that there are not at present to be found in Madras the high tenement buildings and "chawls" which are so disastrous to the health of Bombay and Calcutta.*

The shopping facilities of the Indian bazaar are many and varied. A bazaar is, however, not a good traffic street and, as in the case of our market-squares at home, it would certainly be better if through traffic could be diverted or turned aside. The markets and bazaars should of course be in touch with main thoroughfares, but it is certainly a mistake to take traffic through them if it can be avoided.

The chapter on the Technique of City Improvement is of particular value coming from the pen of one who has made such close study of the subject, and this is

* See Report on Improvement of Calcutta. JOURNAL R.I.B.A., Vol. xxi. (1914), p. 445.

aided by the examples given of the lay-out of Indian towns for which the author has acted as Town Planning Adviser. As Mr. Lanchester, however, well points out, the work of patiently guiding the growth of a town is pre-eminently one for the man on the spot. " May we not hope to see some man of artistic qualifications settling down in a city and devoting himself absolutely to that city only ? By this means exotic and artificial ideals may be avoided and any extravagance checked by the data of the civic survey."

The Indian garden city already exists ; examples may be found all along the west coast of the Madras Presidency. The advantages of giving garden ground to each house would be undoubted were the householder only prepared to cultivate his garden. For the moment this appears to be the main difficulty, but there are many signs of a more general taste for gardening. As this view becomes more general the problem of the Indian city and its tendency towards congestion will become less acute, and side by side with the European the Indian citizen will progress towards a better standard of civic life.

Some interesting details are given of the growth of Madras City since Fort St. George was first founded by the East India Company in 1640, and in the extracts given from the Administrative Report, 1914-15, we find it stated that Madras City is still in many ways unhealthy. Among the causes are the city's extreme flatness, which renders efficient drainage difficult, and the poverty of so many of the people. A large proportion of the population houses itself abominably for the simple reason that it cannot afford to house itself better. " Of special importance to the health of the city is the attempt to stamp out malaria. Though all the tanks cannot be abolished, there are a great many which serve no useful purpose and these should be filled in. The regulation of these numerous tanks is, however, extremely difficult owing to their being mostly private property."

Dealing with the improvement of Madras City, Mr. Lanchester makes many valuable suggestions, his recommendations dealing with surface drainage, railway development, the road system, tramways, grouping of the principal buildings, and educational facilities, housing developments, open spaces, hygienic considerations, commercial developments, &c.

On the question of administration and control of improvement schemes, the formation of a special " Improvement Trust " working independently of the Corporation is the accepted method in Calcutta, Bombay, Baroda, Gwalior, and other cities. To one accustomed to European methods it seems a pity to divide control in this manner, but it is a way that has been devised to meet Indian conditions and may perhaps be the best way of meeting the difficulties.

The suggested plan of development is, of course, not intended to be carried out immediately, but is frankly put forward as a provocative proposal to form a foundation upon which the local administration can plan and guide the development which is bound to come.

The value of an imaginative forecast lies in drawing attention to the larger possibilities of the city's development, and in this Mr. Lanchester has been conspicuously successful.

The report is excellently illustrated and is accompanied by a series of plates giving various aspects of the civic survey of Madras, showing in graphic form the religions, trades, distribution of population, death rates, ground values, ownerships, suggested railway and road improvements, and schemes for new roads, tramways and park system. A large scale map showing the improvement of the central area and the grouping of sites for public buildings is also added.

W. R. DAVIDGE [A.]

FREDERICK RICHARD FARROW [F.]

*Ah, make the most of what we yet may spend,
Before we too into the grave descend.
Dust into dust, and under dust to lie,
Without or wine, or singer, song or end.*

But my friend shall indeed not lack what I may do to supply, if not a song, at least some epilogue to his life ; and even if I be no singer, I may yet put together these few words *in memoriam*. It is, however, with a certain feeling of hesitancy that I am preparing to write a short account of Frederick Farrow, with whom I had for some years been intimately associated on the Editorial Staff of the *Architect*, but whose acquaintanceship I had made long since under circumstances totally dissociated from our journalistic labours.

My hesitancy arises from the fact that of all notices which may be written those in memory of the departed are the most difficult, as it is so easy to fail in doing justice to the subject of the memoir—and so easy, on the other hand, to be or to seem fulsome in praise. Perhaps my object will be best secured by weaving into pattern the warp of my own knowledge of Farrow and the woof supplied by some notes kindly furnished by a former partner of his, Mr. N. C. H. Nisbett.

Until quite recently the tally of his days was not much in evidence ; but all too suddenly was it credible that his sixty-two years were a fact, nor would it unfortunately have been difficult to believe that a greater span of life was to be posted in his ledger. What, though, are appearances ? In very truth ere the echoes of the Crimean War had ceased, and before the terrors of the Mutiny were let loose, Farrow was born. After passing through the Philological School, he was articled, I understand, to Mr. Clement Dowling, a Quantity Surveyor.

Once his professional career was started, his powers of successful study were soon manifested. He won the Godwin Bursary in 1884, and took as his field of research the capitals of the Dual Monarchy—Vienna and Buda-Pesth ; the results of his investigation into the attention paid to acoustics and ventilation in the public buildings of those cities were published in the R.I.B.A. TRANSACTIONS in 1885 ; in this year he passed the Examinations qualifying him for Associate-

ship of the R.I.B.A. and for acting as a District Surveyor under the Metropolitan Building Act, though the latter never bore fruit in practice. Fellowship of the Institute followed in 1889. It is of interest to recall that when the post of Superintending Architect to the London County Council became vacant upon the retirement of Mr. Blashill, Farrow was one of those amongst whom the final selection of a successor was left. It was not long subsequent to the date of his Godwin Bursarship that I made acquaintance with one with whom I could not then anticipate that I should be so closely associated in the last years of his life.

Among Farrow's early works were Emmanuel Church, Holloway, and the English Church at Lucerne. In 1886 he commenced practice with Mr. Nisbett at Gravesend, and with him was actively employed in the execution of works, many being the outcome of competition; several groups of almshouses and additions to the local hospital bear witness to the firm's labours in the East of England, whilst Hampshire and Guernsey in the South are enriched with the schools and domestic work which the firm executed, subsequent to taking over the practice of Mr. C. R. Pink (of Winchester) after his death. For some period Messrs. Farrow and Nisbett were professionally associated with Mr. J. B. Colson. I might refer here to one important piece of domestic work carried out by the trio—namely, alterations and extensive additions to Chilworth Manor, Hampshire—which appealed to me sufficiently for me to obtain permission to reproduce the plans in the third edition of my book *Principles of Planning Buildings*.

From 1907, for a period, Farrow was working solus; but subsequently he and the late Ernest Runtz were associated, and at the time of his death he and Mr. Runtz's son were in partnership, though the latter has been for some time actively engaged in the defence of our country and in the service of our King.

This is all too brief and incomplete a sketch of his artistic career, but I must not take up undue space in these pages and some other points yet remain to be touched upon. He was also busily engaged as a Surveyor, and in the Law Courts he was a witness with whom it was none too easy for even an astute Counsel to cope.

But I want to retrace the pages of memory by some years, in order to enter a few remarks about his devoted labours for the Architectural Association. In 1887 he was elected Joint Hon. Secretary with Mr. T. E. Pryce for the ensuing session and was continued in this post for the Sessions 1888-90. He was elected Vice-President in 1891, but shortly after resigned, upon being appointed a salaried Lecturer, a post which he retained for eleven years. In 1892 he undertook the honorary editorship of *A.A. Notes*, though he did not act for long in that capacity, as he was no longer Editor when I was elected in 1896 one of the original members of the "Notes" Management Sub-Committee.

No notice of Farrow would be complete which failed

to refer to his instructional courses for those desiring to sit for the Institute Examinations; these classes were for a time held in his offices at New Court, Carey Street, but later on he and Mr. Banister F. Fletcher were associated in the conduct of these lectures. At this time Farrow's offices were at 29 New Bridge Street, so close to the scene of his labours during the last few years of his life. His experience on *A.A. Notes* cannot but have proved useful to him upon his appointment in 1910 as Editor of the *Architect*, after the death of Robert Hobart. He has left his mark on the paper in his well-digested leader-articles, and in his careful selection of illustrations, keeping up the reputation of that journal in regard to artistic reproduction.

The more recreative side of his life found him keenly interested in Freemasonry and yachting; the war, however, brought about the enforced cessation from the latter, and simultaneously Farrow was anxious to do his bit for his country, and therefore he enrolled in the National Guards, taking his share of sentry duty and also of the more strenuous labours of station duty, piloting our Tommies from point to point, until the state of his health compelled his reluctant relinquishment of this work.

It is a great testimony to anyone of whom it can be said that no evil has been spoken and no unkind word or criticism uttered. Truly 'tis—

*Only the ashes of the just
Smell sweet and blossom in the Dust.*

PERCY L. MARKS [Licentiate],
Lieut. 7th London Regt. Cadet Corps.

EDWARD COOKWORTHY ROBINS [F.]

The death took place at Worthing on 18th June of Edward Cookworthy Robins in his 88th year. He joined the Institute as an Associate in 1853, became a Fellow in 1860, and retired from practice in 1893; he was also a Fellow of the Surveyors' Institution and of the Society of Antiquaries. Mr. Robins was closely associated with educational matters, and amongst his more important buildings are Milton Mount College, Gravesend, Mission Schools at Sevenoaks, Dover College, Caterham Schools, Crippled Boys' Home, Kensington, Schools at Prince of Wales's Road, N.W., and Sandall Road, Camden Town, also Maresfield Gardens, Hampstead, Merchant Venturers' Technical Schools, Bristol, and the Grammar School at Bedford, while his great interest in technical education is further attested by his published volumes on the subject as well as by his work on the Committee of the City and Guilds of London Institute. He also published a conjectural restoration of Solomon's Temple at Jerusalem.

Ecclesiastical work is represented by his churches of St. Jude, East Brixton; St. Saviour's, Brixton Rise; Emmanuel, West Dulwich; Weeley, near Brightlingsea; and domestic architecture by private houses erected in Roupell Park and Melbury Road, also by blocks of flats in Newman Street and Cleveland Street,

on the Berners Estate, to which he was Surveyor. Mr. Robins, in addition, gave a great deal of his time to the work of the R.I.B.A. by attending Committees and by reading Papers on matters of professional interest; he was an enthusiast in every branch of architectural practice and his capacity for work was astounding. During the twenty years I spent in his office there was unvarying kindness, consideration and helpfulness dealt out to all the staff, and the sudden breakdown in health which caused Mr. Robins's retirement from practice came as a personal grief to each one of us.

ARTHUR E. NORTHCOTE [A.]

. The following is a complete list of Mr. Robins' contributions to the Institute Transactions : "Buildings for Applied Science and Art Instruction," TRANSACTIONS R.I.B.A., Vol. XXXIII (1882-83), 81 ; "Fittings for Applied Science Instruction Buildings," Vol. XXXIV (1883-84), 5 ; "Heating and Ventilation Necessary for Applied Science Instruction Buildings," Vol. XXXIV (1883-84), 25 ; "Introduction and Use of the Steam Jet for Cleaning the Stone of Hanover Church, Regent Street," Vol. XXIV (1873-74), 98 ; "Muniment Chest belonging to the Worshipful Company of Dyers," Vol. XXIV (1878-79), 232 ; "Sanitary Science in its Relation to Civil Architecture," Vol. XXXI (1880-81) ; "The High Sanctuary at Jerusalem," Vol. XXIX (1878-79), 231.

FRANK MILES DAY [Hon. Corr. M.]

Frank Miles Day, the distinguished American architect, twice President of the American Institute of Architects, who died on the 15th June, had been an Hon. Corresponding Member of the Institute since 1907. As representative of the American Institute he was present at the Seventh International Congress of Architects held in London under the auspices of the R.I.B.A. in 1906, and took part in the discussion on the Planning of Streets and Open Spaces, illustrating his remarks by lantern views and plans of American cities.

Born in 1861, son of Charles Day, an Englishman who emigrated to America in 1842, he was descended through his mother from Griffith Miles, one of the original Welsh settlers who landed in America in 1682 before the arrival of William Penn. He graduated at the University of Pennsylvania (Department of Architecture), and continued his studies in England, France and Italy for three years. He started practice in Philadelphia in 1887, his first building being the Art Club. He was afterwards associated in partnership with his brother, Mr. H. Kent Day, and then with Mr. Charles Z. Klauder, and took a leading part in the design of many important residences and public buildings—among them the Horticultural Hall, Philadelphia ; the Gymnasium of the University of Pennsylvania ; residential halls at Cornell University, dormitories and dining halls at Princeton University, and a large group now being constructed at Wellesley College.

Writing in the *Ledger*, an American critic says : "Mr. Day's enthusiastic utilisation of French and

Italian ideas, as in the Art Club and Horticultural Hall, and his very successful adaptation of the best period of collegiate Tudor English for church and college purposes, represent vital movements that are gaining force every day, and have by no means lost their potency. The reason of his success as a pioneer is that Mr. Day represented the type of American architect who gets at the very heart of any particular style, and, knowing its essence, just as the older architects of the best periods did, was able to use it freely to meet all modern necessities. With him, knowledge of what had been done, of what had been considered beautiful, went hand-in-hand with the natural endowment of good taste, the personality and individuality of the true artist, without which all the book knowledge and technical ability are vain."

Mr. Charles Klauder writes : "Mr. Day's student days spent in London between 1883 and 1886 in the offices of Mr. Basil Champneys, Mr. Walter Millard, and at South Kensington, left a lasting impress on his work and ideals, and also made him many continuing friendships. The fact that his father was an Englishman gave an additional reason for Mr. Day's deep and anxious sympathy for England's terrible losses during the war, and his constant interest in the wonderful part which the English architects have taken in it."

CORRESPONDENCE.

The Rebuilding of London after the Great Fire.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Rather late in the day I have been reading the report in your May issue of Mr. Walter Bell's most interesting paper, and the observations of various speakers who joined in the discussion which followed ; and I note what appears to me to be a strange oversight in Mr. Bell's paper, and which also escaped the attention of his audience. Mr. Bell makes a comparison between the cost of building in 1670 and now, and draws conclusions from his figures ; but he overlooks the fact that the values represented by our money 250 years ago were very much higher than they are now. I have no special knowledge on this subject, but I recall that Richard Proctor in a paper which is reprinted in his collected works, gives a list of ten or a dozen staples, or necessities of life, by comparing the value of which at different dates he proposed that the relative value of money at different dates could be accurately estimated.* Thorold Rogers in his *Work and Wages* gives the wages of an unskilled town labourer in the fifteenth century at 6d. a day ; at the end of the seventeenth century it had risen to 1s. 6d., and in 1914 it was 7s. 6d. ; but the cost of living has risen in a proportion not dissimilar, and we shall, I think, not be over the mark if we assume that the value of money was at least three and a half times

* See also "Money and the Mechanism of Exchange" (Jevons).

higher in 1670 than it is now. This consideration, it seems to me, entirely alters the meaning of the figures Mr. Bell produces, and makes his conclusions valueless; and the significance of Mr. Laurence Weaver's pricing of Wren's bills of quantities will only appear when his figures are multiplied by the figure which is ascertained to represent the true ratio between the value of money then, and now. The actual cost of Wren's churches is not represented by their cost in pounds sterling at present value, but in a sum representing the *then* purchasing power of those pounds sterling. The rough conclusion to be drawn from these considerations seems to me to be that, instead of the rebuilding of London in 1914 costing one and a half times more than it did in 1670, it would cost only half as much.

It would be of interest to me, and to others also, I think, if someone capable of dealing adequately with the question I have ventured to raise would do so.—
Yours faithfully,

H. B. CRESWELL [F.]

Victoria and Albert Museum.

A large number of photographs collected by the late Canon Charles Hill Wallace of Bristol Cathedral has been presented by his brother Colonel N. Willoughby Wallace, C.M.G., J.P., late 60th Rifles, to the Victoria and Albert Museum. The collection includes architectural and topographical views in many European countries and in Egypt and Algiers. The views which it contains of Heligoland and the Scandinavian lands around the Baltic Sea are of special interest at the present time.

Evolution of the English House.

Messrs. Batsford have in the press a book by Mr. J. Alfred Gotch, F.S.A. [F.], on *The English Home from Charles I. to George IV.* The work treats of Houses, Interior Decoration, and Garden Design, and is very fully illustrated. It is uniform with the author's earlier book *Early Renaissance Architecture*, and in the two works Mr. Gotch covers the whole course of evolution of the English House from the time of the Tudors to the end of the eighteenth century.

Books Received.

The Dawn of the French Renaissance. By Arthur Tilley, M.A., Fellow and Lecturer of King's College, Cambridge. 8o. Cantab. 1918. 25s. net. [Cambridge University Press.]

Officer's Premium Catalogue. U.S. Naval Stores. 33 1917. Compiled by Committee of the American Institute of Architects. [Published by the American Institute of Architects, The Octagon, Washington.]

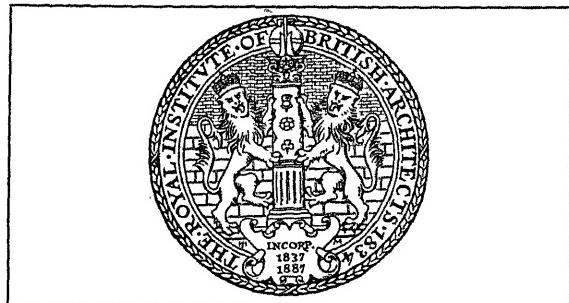
New Towns after the War: An Argument for Garden Cities. By New Townsmen. Sm. 8o. Lond. 1918. 1s. net. [J. M. Dent & Sons, Ltd., Aldine House, Bedford Street, Covent Garden.]

The Bombardment of Reims. By Barr Ferree, Hon. Corr. M. R.I.B.A. Sm. 8o. New York 1917. [Leonard Scott Publication Company.]

A Short History of the Berners Estate, St. Marylebone. By John Slater, B.A., F.R.I.B.A., Surveyor to the Estate. 8o. Lond. 1918. [Unwin Bros., Ltd., Woking and London.]

Soane Museum Publications, No. 4.—Pitzhanger Manor, Ealing Green (now the Ealing Public Library): the Country Retreat from 1800 to 1811 of Sir John Soane (1753–1837). An account with 12 illustrations and 2 portraits. By Arthur T. Bolton, F.S.A., F.R.I.B.A., Curator of Sir John Soane's Museum. Pamph. price 7d. [Sold at the Museum.]

Canadian Douglas Fir: Its Mechanical and Physical Properties. Prepared under the direction of J. S. Bates, Ph.D., Superintendent of the Forest Products Laboratories of Canada, by R. W. Sterns, B.Sc., Chief of Division of Timber Tests. [Department of the Interior, Canada.]



9 CONDUIT STREET, LONDON, W., 27th July 1918.

CHRONICLE.

"France's Day": The R.I.B.A. Salutation.

A letter was addressed to the Institute by Mr. Arnold Bennett, Head of the French Section of the Department of Propaganda, Ministry of Information, stating that it had been suggested that the Institute might care to send a message of greeting to the French nation, for publication in France through the agency of Reuter. It was requested that the message should be of a striking nature and quite short. The following greeting, drafted by Mr. John W. Simpson [F.], Membre Correspondant de l'Institut de France, was sent to the Ministry of Information and cabled to France:—

ROYAL INSTITUTE OF BRITISH ARCHITECTS,

le 14 Juillet 1918.

Hommage à la France, berceau des arts, de la part des Architectes de l'Institut Royal!

*À l'admirable Pays, couronné de nouveaux lauriers par son indomptable résolution,
à l'Etoile séculaire de la Civilisation, brillant dans les ténèbres passagères,
au parfait Camarade et Allié,
Salut et Reconnaissance!*

Control of Materials: Deputation to the Ministry of Reconstruction.

Mention has been made in the JOURNAL of the Conference of representatives of the professional institutions of Architects, Builders and Surveyors which was called by the President to discuss problems relating to the reconstruction after the war of the professions and trades connected with Architecture and Building, the primary object being to assist the authorities to restart the building industries immediately peace is restored. One of the matters discussed by the Conference was the desirability of an early relaxation of the present administrative restrictions on building and building materials, and a resolution which had the support of the Architects and the Surveyors was passed urging that the principle of priority as regards the supply of raw or manufactured materials should be abolished immediately upon the

declaration of peace, and that an open market should be established in such materials as the best means of encouraging production. The Builders could not see their way to support the resolution and withdrew from the Conference.

It was decided that the views of the majority should be represented to the Government, and the Ministry of Reconstruction having consented to receive a deputation the following members of the Conference waited upon Dr. Addison on the 9th July : Mr. Hare, Mr. E. Guy Dawber and Mr. Arthur Keen, representing the Institute ; Sir Alexander Stenning and Mr. George Corderoy, representing the Surveyors' Institution ; and Mr. Henry Riley and Mr. Arthur G. Cross, representing the Quantity Surveyors' Association.

Mr. HARE, in presenting to Dr. Addison the resolution of the Conference, referred to the prevailing opinion that when peace was restored there would be a considerable shortage of building materials, and that some kind of control over their distribution would be desirable. The majority of the Conference, however, while admitting the present evidences of a future shortage, considered that there were factors in the situation which had not received due consideration —such, for instance, as the immediate cessation of all works connected with munitions and munition factories, and the very high prices of materials, which would deter people from engaging in building operations till more favourable times. But even assuming a shortage, it would be desirable that there should be a cessation of control of raw and manufactured materials immediately peace was concluded. The abolition of control would be the shortest and surest means of getting back to a normal condition. No control and a large demand would naturally lead to high prices, and high prices would stimulate production. High prices, again, would check building, and that would react upon the shortage of materials. The only dangers to be apprehended were, first, that certain essential industries for National requirements might suffer because less essential work would compete with them. That danger, however, might be met by the Government earmarking or purchasing sufficient materials for urgent purposes and leaving the balance to be disposed of in the open market. The danger of a possible cornering of materials would be well within the powers of the Government to prevent.

Mr. GEORGE CORDEROY said that he and the Institution which he represented were whole-heartedly in favour of the resolution, and from the commercial point of view would regard it as the greatest calamity that could happen to the country if the control of building materials were to continue after the declaration of peace.

Mr. ARTHUR KEEN and Sir ALEXANDER STENNING also spoke.

Dr. ADDISON, in reply, expressed the pleasure he felt that such important institutions as those repre-

sented should have got together for the purpose of giving combined and deliberate thought to this problem. It was a great advantage and nothing suited his purpose better. He hoped that once having got together they would remain together, so that he might ask them to come and see him again if at any future time he should wish to consult them. He had found in connection with a good many important industries how difficult it was to get a body of men together whom people were content to represent them and consider questions on their behalf. The resolution, he went on to say, was framed in somewhat absolute terms, but he shared their anxiety and was doing all he could to meet their point of view. He entirely agreed that what must be aimed at was to get rid of the centralised controls at the earliest possible moment and to get the industries back into their normal channels. But that was not quite so easy as might appear from the formal resolution of the Conference. Where there was no shortage there would, of course, have to be some very good reason for continuing control. He was fully alive, too, to the importance of stimulating production. Dr. Addison concluded by assuring the deputation that it was the considered purpose of the Government to make arrangements which would facilitate the resumption of the various industries in a normal way as early as possible. These arrangements would be carried out at the earliest possible moment, and the Government would endeavour to carry the industries with them in anything that they decided to do.

The Royal Academy and War Memorials.

A conference on war memorials was held at the Royal Academy on 26th June, when a large number of representatives of the Church, of Government Departments, and of the principal artistic and other institutions were present, including Sir Lionel Earle, Secretary of the Office of Works, the Deans of Canterbury, Bath and Wells, and Ely, Mr. R. C. Norman, Chairman of the L.C.C., Mr. Henry T. Hare, President of the R.I.B.A., and Mr. R. W. Shirley, Master of the Art Workers' Guild. Sir Edward Poynter, P.R.A., took the chair.

Sir Edward Poynter, P.R.A., after reading the circular of general advice distributed last March by a Royal Academy Committee on War Memorials [see JOURNAL for April, p. 143], said that the time had now come for taking further steps to secure combined instead of isolated effort in erecting memorials, and to protect churches and public buildings from unsuitable treatment in setting up monuments of the war. A letter was read from Mr. Rudyard Kipling, who recommended the formation of a committee to advise on sites and designs, and make widely known its readiness to do so. The Dean of St. Paul's wrote that he was in favour of a single national memorial as against numerous local monuments.

Lord Plymouth urged that a strong committee of members of the Royal Academy and other experts should take every possible step to keep before the public the pre-eminent claims of art in the matter of patriotic commemoration.

Lieutenant-Colonel Sir A. Leetham said that Lord Milner had deputed him to attend the conference and to assure the Royal Academy that the Army Council were in full accord with the proposed scheme for advising on the subject.

Lord Crawford congratulated the Royal Academy on having had the opportunity of impressing the important truisms of its circular of advice. The great problem was to impress on the public mind the collective capacity of large joint memorials. Too often the dignity of a public building had been spoilt by the small personal memorials placed in it. The English were supposed to be specially individualistic, but their successes in the war were due to collective effort, and the function of a committee of advice would be to induce collective effort also in the permanent records of these achievements. With regard to the treatment of churches, he thought it would be possible to get into touch with the chancellors of the dioceses. It was certain that local memorials would be erected in great numbers, and here a central body of advice would be most useful to the local committees. It was important, also, that the artist, the creator of the work which formed the memorial, should have as free a hand as possible. The Royal Academy, with its high traditions and honourable status, was the proper authority to organise a strong body of artistic opinion, to which the public would naturally turn as the central panel of advice on the whole subject. He was sure that by tempering enthusiasm with discretion they would establish a system of artistic control which would be of great and permanent usefulness.

Sir Alfred Mond (First Commissioner of Works) expressed his sympathy with the movement, and hoped it would succeed in saving the country from the erection of unsightly objects intended to commemorate the war. Merely utilitarian buildings for this purpose should be discredited in favour of artistic monuments. Possibly the committee might formulate a series of authorised types of design carefully studied beforehand, so that definite schemes might be ready when the memorial was to be erected. He trusted that the organisation started by the Royal Academy would develop into a permanent influence for the right guidance of artistic taste in the country.

Sir Frederic Kenyon (Director of the British Museum) discussed the best way of dealing with the innumerable small personal memorials which were certain to be set up in every locality.

The Dean of York gladly welcomed the action of the Royal Academy, and was sure the assistance proposed would be very welcome to deans and chapters throughout the country. It would be especially useful to have it well known that there was a strong body of expert opinion in favour of corporate memorials. Besides the building of memorial chapels, and the use of crypts, he suggested the clearing away of the ugly structures which obscured many of our finest buildings, and so forming a handsome space.

On the motion of Lord Plymouth, seconded by Mr. C. J. Holmes (Director of the National Gallery), it was resolved that the conference should form a general committee, which would appoint an executive committee to carry out the various suggestions agreed on at the meeting.

The National War Memorials.

Extracts are given, as far as space permits, from an eloquent article signed "A Londoner" which appeared in the *Daily Telegraph* of the 19th July:—

Once more (says the writer) the over-tenanted stones of Westminster Abbey cry out that there should be added to the greatest and most lovable building in Europe some worthy annexes in which the dead of the next six centuries may lie side by side with the dead of the last, co-equal in honour and in our eternal gratitude co-equal. There is only one space in which the Abbey buildings can be extended. West, north, and east the urgent traffic of London hems in the great structure that from Henry to Henry summed up, and still sums up, the splendour and the pride of England.

To the south alone is there room and space for this extension, and the time has come when all the land to the

south of the Abbey, from the Chapter House to Wood Street, must be reclaimed from the tide of dingy brick that should never have been allowed to surge so near the pivot of all the Empire. . . . The Westminster Palace Gardens have at least been secured; but in those days there was no need at any one moment of some gigantic scheme by which to perpetuate our solemn debt to those who have died for us, for all that we hold dear, for all that civilisation means. That time has now come, and the feeling that there can be no other worthy place is quick in the souls of us all. No peddling institute to commemorate these iron days; no subscriptions. . . .

The cost of this war must be extended at least a fraction of one day longer in order that those who come after may still see beside the place where the heart of the Empire throbs something that shall record our plain thanks to the men who saved us in the day of our great and bitter need. No steel and stucco work for us—it should be as Reginald Bray may have dreamed it in the old days when that most miraculous of all roofs in the world was set up over the glass walls of Henry VII.'s chapel. It should be of stone, as carefully tested and chosen and tested again as any and every block in the Assouan dam. It should have foundations plunged into and through the London clay as deep as ever a caisson sank. In these days of show and glitter, let us have one solid and everlasting memorial of what the British Empire proved itself to be in the day of Armageddon.

The dainty little gardens and closes of College Street would have stood small chance and have been given small respite in the days of Edward or Henry. Why should they be respected now? . . .

We can build nowhere else; and these gathered peoples who have fought for us and ours intend to build. Ask any one of our Dominions if they would not instantly and as an honour bear the whole cost of this great memorial. Ask—and, for the sake of our great heritage, refuse. This is our business, and as plain, sane men we shall not hesitate. One with the memorials strung along our line in Flanders and in France; one with the scattered records of our lives laid down on the Peninsula, at Salonika, in Palestine, and along the river; one with the unrecorded graves of those who died in fair fight or by foulness on our sea-green acres; one with our story as a kingdom, a State, an Empire; let us sweep clear the southern aspect of the Abbey and do ourselves the honour of having done it to the memory of the men who have died to save the world.

A writer in the *Observer* of last Sunday strongly supports the plea for the extension of the Abbey.

We have proved (he says) that we are capable of earth-shaking war, but our whole inner purpose is to recover the noble proportions of life as they have been symbolised for centuries in Westminster Abbey. And our Overseas peoples will tell us that we can give the dust of their heroes and the records of their soldiers no honour comparable to their reception into the great parish church in London in which all "diversities of gifts" and all "differences of administrations" have found their rest and memorial. The maternal grace of the Abbey was never so felt as to-day. When in 1834 the old Houses of Parliament were in flames which lit up half the Home Counties and brought tens of thousands of people to Westminster, an eye-witness saw that amid the dreadful pother the Abbey seemed asleep in the moonlight, unconscious of the glow that played along her buttresses. And thus she stands now in the lurid light of Armageddon—waiting.

The article concludes:—

This great work, then, must be done, but it does not, and cannot, abrogate the need of a great secular memorial in open-air London. Here, also, the dream has been dreamed and a great scheme is ready. The road from London to

Paris and the Continent must begin in a noble architectural manner at Charing Cross. We owe this to ourselves and to our great Ally. London must be given a vestibule of honour in which the men and women of France shall on their arrival see our greatness and our gratitude expressed by art. I need not recapitulate the plans that have been made for the removal of Charing Cross Station to the Surrey side, and the destruction of the insufferable iron railway bridge, to allow of the creation of a great approach to a new Empire Bridge with the symbols and embellishments that are fitting. As a nation, we are going to live in the light of the world's eyes as never before, and the days of self-content and bugger-mugger are gone.

In this connection reference should be made to the Charing Cross Improvement Scheme put forward by Mr. John Burns, Sir Aston Webb and Mr. Reginald Blomfield in the *Observer* of the 22nd October 1916, and quoted in the JOURNAL of the 11th November following.

War Memorials in Churches.

The War Memorials Committee of the Diocese of Chichester have issued, with the assistance and approval of the Diocesan Architect, Mr. H. P. Burke Downing [F.], the following suggestions and advice for the guidance of those who are considering the erection of War Memorials in Churches :—

The Advisory Committee desire to ensure that Memorials in or in connection with Churches, to the honour of those who have given their lives for their country in the war, shall not fall short in their expression of respect and gratitude by reason of any fault or unworthiness in form. The Committee believe that advice in such matters is welcomed, and that, owing to ignorance as to where it may be obtained, there is grave risk of the adoption of forms unsuited to their surroundings or unworthy of their object. The catalogues of furnishing firms are not safe guides.

To be expressive there must be individuality, and, even so, however excellent may be the work of the artist or craftsman in itself, it will fail if it is not in due subordination to the building in which the work is to be placed and in harmony with its surroundings. The governing considerations are architectural, which is frequently forgotten.

The Committee do not think it is possible to give any guidance that would be generally useful as to the form of Memorials which may best be adopted: the choice will obviously be affected by local and personal circumstances, but the Committee would draw special attention to the desirability of giving preference in old churches to the replacing of ancient ornaments of the church rather than to the erection of new monuments. As instances the following are suggested:—Repair of chancels, re-erection of screens, both chancel and parclose, of roods and lofties, canopied font covers, good bells, and churchyard crosses.

The Committee make the following suggestions:—

(1) One Memorial designed to harmonise with the building or surroundings in which it is placed is to be preferred to several small Memorials, but separate Memorials may form part of one common scheme—e.g., the fitting up of a Chapel. Lacquered brass or copper ornaments and characterless fittings are to be deprecated.

(2) The erection of a united Memorial should be postponed until the end of the war, though it is of importance to decide beforehand what form it shall take.

(3) Whatever form of Memorial may be in the minds of the promoters, whether it be something monumental or structural or the provision of the simplest ornament, it is desirable that the services of an Architect should be employed. His advice should be sought not only as to the form of the Memorial, but as to the artist or craftsman to be employed.

(4) The promoters and their Architect would have regard

to the architectural style, character and period of the church and the materials of the structure and the right preference to be given to the use of local materials where fit for their purpose.

(5) Quality, simplicity and suitability should be the guiding principles in carrying out the work. Special attention should be given to good lettering.

(6) Where it is proposed to place the chief Memorial in the open air, it is advisable that a record of names should also be preserved within the church, engrossed on vellum in book form or otherwise.

(7) A Faculty should be obtained in every case in which in accordance with ecclesiastical law this is necessary.

(8) The Committee will be prepared to give more particular advice to Incumbents who may have proposals under consideration.

"Unity of the Profession."

The Second Annual Conference of the Institute of Scottish Architects was held at Glasgow on the 13th June, the Chair being taken by Mr. T. F. MacLennan [A.], of Edinburgh, in the absence through illness of the President, Sir John Burnet [F.]. A letter was read from Sir Rowand Anderson [F.] expressing satisfaction with the Council's annual report, and touching upon the proposal to apply for a Royal Charter in view of the Royal Institute being the Royal Institute of British Architects. The subject, he said, required to be handled with great care and tact. At the time the Royal Institute was formed Scotland, he supposed, was a negligible quantity, but things were now different. There were distinctive differences in the practice of the profession between England and Scotland, and these must be dealt with in a very tactful way, and the Royal Institute be given every assurance and confidence that it is the earnest desire of the Scottish Institute to continue in friendly co-operation with them in the interest of the whole profession.

Mr. MacLennan, in his opening address to the Convention, took for his subject the question of "Unity of the Profession." In the first place, he thought that they should not flatter themselves overmuch on what they had accomplished. They might say that while their friends over the Border had been talking they had been acting, and that they had accomplished a union such as had never been in their land before. There was, however, much hard work to be done if they were to solidify and strengthen this union and make it of real and lasting benefit to the profession. They were trying to unite men who were as the poles apart from one another in knowledge, attainments, and aspirations. There were men in the profession who had devoted their lives to the study of ancient architecture, intensely interested in everything which shed light on past architectural history, men who could add little bits here and there to an old Scottish castle which would look as if they had grown there, or who could restore to an old cathedral something of its ancient beauty, and who cared not whether the job was a £500 one or a £10,000. It received their entire devotion and loving care for the time being. On the other hand, they had architects who were primarily business men with a sound knowledge of building construction and the qualities of materials, and more keenly alive to the value of original and unique than to the exact historical niche which the building they were dealing with filled. And between and beyond these they had dozens of others alike only in one thing, and that was that they differed from everyone else. These were the men whom they were trying to unite. Was it possible? Now he did not for a moment mean to suggest that these qualifi-

cations to which he had referred were mutually destructive, or that they could not exist in the same person, but he meant to say that many of them had one set of qualities and accomplishments to the exclusion of others equally important for some particular phase of their professional work, and that consequently they must look upon questions of professional policy from widely different points of view. Add to this that pestilential microbe which was by no means confined to the architectural profession, or to all the professions, but which afflicted and was foolishly nursed and encouraged by mankind—he referred to professional or trade jealousy—and they might well ask: "Is it possible for us to unite for our mutual benefit?" He maintained that it was not only possible but necessary if they were to fulfil their proper function in the national life. All the great styles or phases of styles in the past had been of national and not individual growth, and if their art was to come into its own again they must neither hold aloof from the rest of mankind nor from each other.

Mr. Maclellan went on to refer to the recently issued Report of the Architects' Re-organisation Committee. Briefly, their proposal came to this—the formation of a permanent Council of Control, the *personnel* of which would consist of representatives of all sections of the profession, including the R.I.B.A., with its Allied Societies, the Architectural Association, the Society of Architects, and outside architects not in any such body. This Supreme Council of Control would deal with all controversial questions, whether arising within the profession or from outside of it, and would become the mouthpiece of the architectural world in its dealings with the public. They would also deal apparently with the conduct of competitions, conditions of contract, scientific construction, strength of materials, etc., and would issue reports upon all such subjects, which pronouncements they were told would have much greater weight than the probably diverse pronouncements of two or three of the present smaller bodies. The result of all this, to the speaker's mind, would only be confusion worse confounded. If the proposed Supreme Council was to carry out all its functions as sketched above it would require to meet very frequently. Where would it meet and where would men in private practice find time to come from the ends of the country to attend such meetings? Again, if the smaller bodies already in existence had come to a decision regarding any of the subjects mentioned, were they likely to accept an adverse decision of this Supreme Council on a matter on which practice varies very much in different parts of the country? And again, how were "outside" architects to be represented on such a Council? They would have to form a society of their own before they could elect one of their number, and by the fact that they had held aloof from existing societies they had shown either their own consummate selfishness or their natural aversion to the rule of majorities—a perfectly reasonable standpoint, but one which would make them still more averse to anything in the nature of a representative Supreme Council. He had no objection to a Supreme Council, but its powers would, he thought, require to be restricted to matters of general policy, and great latitude would require to be allowed to the smaller societies in different parts of the country to make laws for themselves and carry on their business in their own way. And the same thing applied to their own Institute. The Institute Council was the Supreme Council of the Architects of Scotland, and the area was not too large to make its rule effective and of invaluable benefit to the profession. The whole weight of its influence and authority could be brought to the aid of its members

when they were up against a local authority or a Government department. On the other hand, there must be no attempt to force any particular policy on members throughout the whole country. The various chapters or districts must have a generous measure of home rule, but, on the other hand, there must obviously be no attempt on the part of any district or districts to force the Institute as a whole to adopt a policy against the wishes of the other districts. They must be prepared to make sacrifices for the sake of unity and the greater good that would come from unity and co-operation, but if they could not agree, they must agree to differ, and allow each district to govern itself in accordance with use and wont.

The other suggestion for obtaining the much desired unity among architects to ... as emanating from London was to be found in the report of a recent debate on this subject in the JOURNAL of the Royal Institute. The suggestion was to the effect that there should be two societies or institutes of architects with separate functions—the one (say the R.I.B.A.) should confine itself to the advancement of our art, and the other (say the Society of Architects) should confine its activities to the professional interests of its members. Here they had two definite grounds of appeal to architects, and verily they would divide the sheep from the goats. He did not imply there was anything to be ashamed of in looking after the interests of the profession—far from it; but to set up a separate society with this avowed purpose seemed to him the height of absurdity. There was no reason, for instance, why they should allow the public and, in consequence, the Government, to remain under the delusion that they were not practical men, and that the only practical men were tradesmen and engineers. But they knew that in general knowledge, not of one trade or one form of construction, but of many, very few tradesmen or engineers could equal the experienced architect, and that ... knowledge and experience gave him confidence and initiative in dealing with the multifarious problems that came before him for settlement. There was no reason why they should hide this fact, but the mere advertising of it was not sufficient. The greatest drawback to their profession was the incompetent architect, and the fact that there was nothing to prevent anyone who could draw lines on a paper calling himself an architect if he chooses. They could only safeguard themselves and the public by increasing their own efficiency to deal with the changing problems of to-day, and this they could best do by raising the standard of education for the architects of the rising generation. If they looked after the advancement of their art and the study of their science (for architecture was both), the interests of their profession might safely be trusted to keep abreast of them.

The new President of the Institute is Mr. William Kelly, A.R.S.A., of Aberdeen.

The Leeds Civic Society.

Following the example of Birmingham, the formation of whose Civic Society was drawn attention to in the last issue of the JOURNAL, the citizens of Leeds have just established a similar Society under the name of the Leeds Civic Society. As was the case at Birmingham, the architects of the city have taken a prominent part in getting the Society established, and at the meeting held on the 18th July in the Lord Mayor's rooms the Leeds and West Yorkshire Architectural Society was represented by its President, Mr.

Geo. F. Bowman, Mr. William H. Thorp [F.] and Mr. H. S. Chorley [F.], Past Presidents, and Mr. C. B. Howdill [A.], Members of Council.

It was explained that the aim of the Society is to enlist the interest of the citizens generally in proposals designed for the improvement and the general welfare of the city and for the enhancement of its beauty. The Lord Mayor welcomed the idea most cordially, and expressed his feeling that if a living organism of this kind had existed fifty years ago some things done by the City Council of that time might with advantage have been done differently.

Mr. W. H. Thorp read a memorandum setting forth the objects aimed at, and adding that at the present time many schemes and proposals for the better housing were demanding urgent attention. In all this, beauty should go hand-in-hand with utility. It was realised that those responsible for public improvement resented anything which looked like undue interference; but if it was made clear to them that the object of this movement was to educate and influence public opinion, and at the same time help proposals for the public good, they in their turn would welcome help and suggestions.

Colonel Kitson Clark said that the spirit behind the new movement could be summarised in the words "taste" and "health." There was scope for this Society without impinging upon ground already covered by existing organisations; indeed, the first care should be to give voice to the love of the lovely, to societies which point the same way, to promote good taste, to encourage cultivated recreation, and to assist the cause of health, but not to act as busybodies—these would be the functions of the Leeds Civic Society.

It was decided to arrange for a public meeting early in the autumn, to be addressed by well-known men interested in the movement, at which the Society would be definitely constituted.

"The Professional Association."

The Bye-laws and Regulations have been received of a newly formed society styled "The Professional Association." Its objects are (a) To provide a central organisation for the discussion of matters of professional interest in H.M. Office of Works; (b) to safeguard the professional status of the members and to promote their interests. Members comprise every person on the Register on 15th October, 1917, and every person so elected thereafter. A candidate for election must be employed in H.M. Office of Works and engaged on professional duties connected with the Department, and must have passed the relative Civil Service Examination, or shall satisfy the Council that he has had suitable education as an architect, engineer or surveyor. Heads of divisions and their deputies are ineligible. Subscriptions are 10s. 6d. per annum. The President is Mr. G. J. T. Reavell [A.], and the Hon. Secretary Mr. H. A. Dives; the address, Storey's Gate, Westminster.

MINUTES.

At the General Meeting (Ordinary) held Monday, 24th June, 1918, at 5.30 p.m.—Present: Mr. Henry T. Hare, *President*, in the Chair; 41 Fellows (including 16 members of the Council), 20 Associates (including 2 members of the Council), 7 Hon. Associates, 3 Licentiates, and numerous visitors—the Minutes of the Meeting held 10th June 1918 having been published in the JOURNAL were taken as read and signed as correct.

The Hon. Secretary announced the death in action of Lieut. Philip Minor, Durham Light Infantry, *Associate*, elected 1907, and it was RESOLVED that an expression of the Institute's deepest regret for his loss be entered on the

Minutes, and that a message of sympathy and condolence be forwarded to his widow.

The Hon. Secretary also announced the decease of Frederic R. Farrow, elected Associate in 1885 and Fellow in 1889, and sometime member of the Science Standing Committee; Hubert Osborn Cresswell, Pugin Student 1885, Associate 1886, Fellow 1895, who had served on the Practice and other Committees of the Institute; and Edward Cookworthy Robins, elected Associate 1853, Fellow 1860, and placed on the list of Retired Fellows in 1893. Upon the motion of the Hon. Secretary it was RESOLVED that a vote of condolence be passed to their nearest relatives.

The decease was also announced of Alfred Henry D'Arcy, *Licentiate*.

The President delivered an Address on the Presentation of the Royal Gold Medal to Mr. Ernest Newton, A.R.A., Past President, and congratulatory letters were read from Sir Ernest George, A.R.A. [F.], Mr. Paul Waterhouse [F.], Lord Leverhulme [Hon. A.], and Mr. Francis Hooper [F.]

Mr. Newton, having been invested with the Medal, read his Address in reply, and Sir Aston Webb, K.C.V.O., C.B., R.A. [F.], and Mr. Reginald Blomfield, R.A., Past President, also addressed the Meeting.

The meeting terminated at 6.15 p.m.

NOTICES.

Professional Conduct.

The Council have passed a Resolution substituting the following for Resolutions Nos. 1 and 2 published on page 70 of the last issue of the KALENDAR:—

That it is reasonable for an architect's name to be placed on his buildings both during construction and on completion, provided it be done in an unobtrusive manner.

Corrections.

Major Reginald Fowler Gutteridge.—The photograph at the top left-hand corner of page 182 of the last issue should have been inscribed "2nd Lieut. RICHARD HOWARD GUTTERIDGE [A.]," not "*Reginald Fowler Gutteridge*," and members are requested to be good enough to mark the correction in their copies. Members will be glad to know that Major Reginald Fowler [A.], who before the war was in partnership with Mr. Alfred F. Gutteridge, of Southampton, is quite fit and well. An old "Territorial," holding the rank of Senior Captain in the Hampshire Regiment, he was doing his annual training on Salisbury Plain when war broke out. His battalion was almost immediately sent out to India to release some of the old Regulars and some two years ago he received his promotion to Major. He is now in Burma.

In the list of military distinctions won by Members recorded in the Council's Annual Report [JOURNAL for April, p. 123], Major P. G. Fry should have been credited with the "D.S.O.," not with the "M.C.," as printed.

The Associateship: Special War Regulations for Candidates.

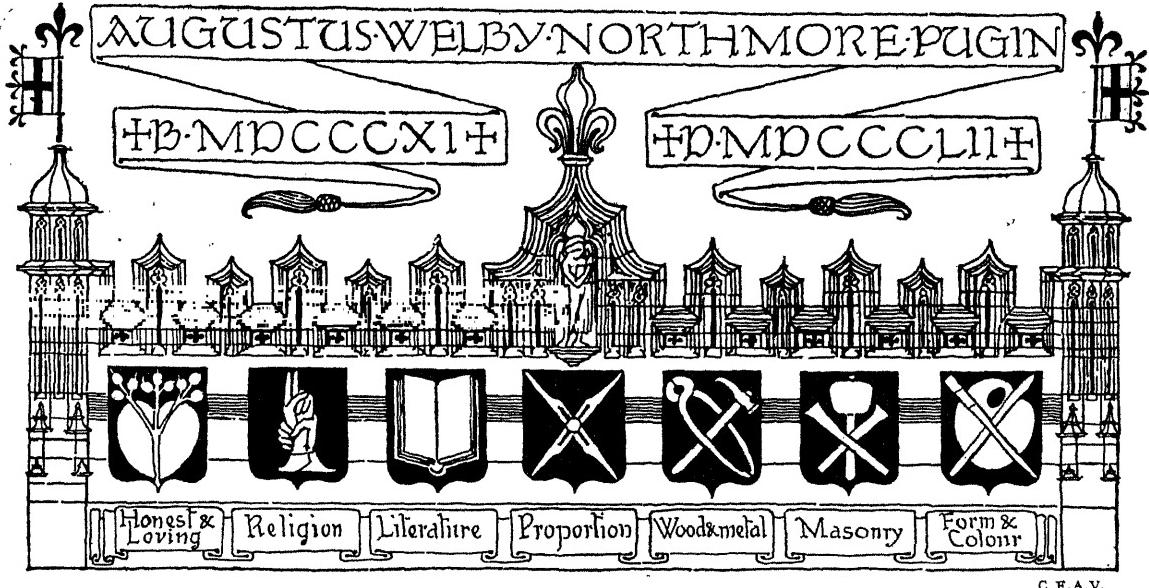
The Council have granted the following temporary concessions to Students R.I.B.A. and others seeking to qualify for Associateship R.I.B.A.:—

(A) *Special War Exemption* for "Students R.I.B.A." who have served in the Forces.

(B) *Special War Examination* for persons not eligible for, or desirous of availing themselves of (A), who have served in the Forces.

Full particulars of the above may be had from the Secretary.

For SALE BY Officer's Widow, architect's chest in well-seasoned wood, fitted with drawers. Length 5 feet 2 inches, breadth 3 feet 2 inches, height 1 foot 10 inches. Also two architect's stools, leather seats. £10 accepted.—Apply "Box 185," 9 Conduit Street, W.



C.F.A.V.

AUGUSTUS WELBY PUGIN: A SKETCH.

By HARRY SIRR [F.]

ABOUT the year 1820 activities commenced under an Act of Parliament having for its object the building in populous parishes in England additional churches which both internally and externally should possess the character of ecclesiastical edifices for Divine worship according to the rites of the Established Church. The attention of architects and others at this time already turned in the direction of a revival of the Gothic style, the style chosen, rightly or wrongly, for an overwhelming majority of the new churches. Results of efforts put forth for the benefit of posterity, more or less conspicuous, are to be seen up and down the country. Probably one of the most distressing examples of "Gothic" attempted is the church at Somers Town, St. Pancras, of which the foundation stone was laid in 1822.

At this time also a delicate little boy was receiving his education as a private scholar at Christ's Hospital in Newgate Street, to which he could go and return daily to his home in Store Street, Bedford Square, without excessive fatigue. Intelligent and quick at his studies, "his master remarked of him that whether in Greek, Latin, mathematics, or any other branch of education, he would learn in twenty-four hours what it took other boys many weeks to acquire." Apparently he preferred the company of those who were his seniors in years ; he was fluent of speech, and dogmatically expressed his opinions, but he was refined, and a polished little gentleman.

Forty years rolled by. About the year 1861 a remarkable number of representative Englishmen—noblemen, statesmen, architects, artists, ecclesiologists—were moved, and others spontaneously came forward, to honour the memory of Augustus Welby Pugin for services rendered to art generally and especially for services in the promotion of the true principles of Mediæval Architecture, and a studentship was founded to be the means of promoting the principles he ably advocated and applied. Welby Pugin's name had been familiar upwards of five-and-twenty years. The clever little schoolboy growing up, and in time incredibly short, had developed exceptional abilities, and soon in early manhood's years became an influence through his writing and executed work inseparable from the art history of the mid-nineteenth century, albeit he passed away in his fortieth year in 1852. Thus he attained in years an age short of that accounted the prime of life, but the medical men around him during his last illness said he had worked a hundred years in forty.

Pugin was born in Store Street, Bedford Square, 1st March, 1812. The date when he left Christ's

Hospital is unrecorded. Almost immediately he entered his father's office, where he learnt perspective, acquired some useful knowledge and amused his fellow-pupils with his humorous drawings and caricatures. He was seldom without a pencil in his hand, and though he rendered in the office little assistance in mere mechanical drawing from given dimensions, he delighted in sketching from nature or in availing himself of opportunities of drawing in Westminster Abbey. To his mother he often would say : " My own dear mother, how happy I am ! Nobody can be happier than I." His father was engaged upon a work which should illustrate the buildings of Paris, and he was taken to that city with some of the pupils for the purpose of obtaining sketches ; the finished book was called by his father " Augustus's work," for the boy did more than three-parts of it. Early in 1826 Welby or Augustus Welby, the Younger Pugin—so distinguished from his father, Augustus, the Elder Pugin—began closely to study castellated buildings. He was now fourteen years of age, and familiar with the Tower of London. Gundulph's other work, the Castle of Rochester, was little known and unexplored, and he set out with Benjamin Ferrey to study it. At considerable risk he explored the well and huge trenches made at the base of the keep walls that he might ascertain the depth and nature of their foundations. Besides sketching every part of the castle he prepared careful measured drawings showing it completely restored. The following year he accompanied his father on a professional tour in France, and as he could speak French fluently and sketched well he was of great assistance to him. He was taken ill through overwork in Paris while drawing in the Cathedral of Notre-Dame. Architects at this time were but superficially acquainted with Gothic work ; of the spirit they had little conception, and they were hopelessly ignorant of the detail. The Elder Pugin, aided by his pupils, had long been engaged in delineating mediæval buildings and their details in a practical manner, work hitherto unattempted seriously. The *Specimens in England* was published in 1821-2, the *Specimens of Anglo-Norman* in 1826. His superior knowledge became generally recognised ; so much so that architects regularly sought his aid, and really their Gothic buildings were designed almost entirely and wholly detailed by him, again with the help of his son and pupils.

Welby Pugin received his first commission from a firm of celebrated goldsmiths, one of whom noticed the boy copying prints of Albert Dürer and Israel Silvester in the British Museum, and much beautiful plate was made in the old manner from his designs. Another firm employed him to design the important furniture for Windsor Castle. He was yet a boy of fifteen years or little more when he discovered great improvements could be made in theatrical scenery, and learnt the art of distemper painting on canvas. Having cultivated a taste for stage machinery and scenic representations he applied himself closely to their study. At much expense he converted the upper floor of his father's house in Great Russell Street into a model theatre, designed and painted beautiful scenery, and contrived mechanism for surprising changes. The manager of the Italian Opera commissioned him to design all the scenery for the new ballet opera of "Kenilworth," brought out in the season of 1831. With great originality and novel improvements in mechanism he achieved great success. He also rearranged the stage at Drury Lane.

A change came over him, and he made up his mind to go to sea. First a small boat was kept for pleasure ; subsequently he successively commanded a smack and a schooner. Amongst the merchandise were brought back antiquities he had purchased in old stores in Holland and Flanders for his private museum already started. Wrecked on the Scotch coast in 1830, he and his men all but perished. Gillispie Graham of Edinburgh befriended him, and extracted a promise that he would give up the sea-faring life and return to his profession.

Such were his intimate acquaintance with mediæval work and his power of rapid draughtsmanship that many leading architects now placed sketches with him for accurate details while he continued to live with his parents. Further to assist, as already he had taught carvers the Gothic manner, he rented extensive premises, and undertook to supply either in wood or stone ornamental portions of buildings which could be executed and afterwards fixed. A great deal of excellent detail was supplied,

but lack of business training led to financial embarrassment. His good father was greatly distressed by a message announcing that his son was seized for rent and placed in a sponging-house. Finally the liabilities were discharged by Miss Selina Welby, his aunt, and young Pugin resolved to abandon business and devote his full energies to his profession. In this year, 1831, he started married life in his father's house, but the year following his wife died and left him with an infant daughter. Grief affected his health for some months while residing temporarily with his mother at Christchurch, Hants, probably to be with comforting friends, the Ferreys. He next went to live in Salisbury, where he copied illuminations of ancient missals and service books in the Cathedral Library, and made exhaustive sketches of the Cathedral. He was busied in this way when his father died ; four months afterwards he lost his mother, in April, 1833. In that year, when he came of age and married his second wife, to be near his aunt and that he might sail his yacht for pleasure and health he moved to Ramsgate. Thence a tour was made in the West of England to visit cathedrals and buildings yet unknown to him. With Wells Cathedral he was enchanted. Exeter, Taunton, Bristol, Chepstow, Tintern, Hereford, Malvern, were places included in the itinerary. Then he visited Worcester, Lichfield and Oxford, where he was much delighted with the restoration of Magdalen College Chapel by Mr. Cotttingham. His intimate friend Mr. Osmond of Salisbury received most interesting descriptive letters with marginal sketches. In 1834 he was upon another tour, and wrote from Ely expecting to be in Ramsgate in less than two weeks, and afterwards to have a nine months' travel in Normandy and the Low Countries to collect originals and sketches. "I have already completed three books," he said, "and have another in hand to be completed when I return to Ramsgate." And again, "I am very happy to inform you that the fourth and last number of my work will be shortly published, and that it is meeting with the greatest success. I shall have several new books to show you when I come down, for I work without ceasing, and trust I continue to improve." *Designs of Gothic Furniture*, published in 1835, was a marked success. *Designs for Gold and Silver Work*, *Designs for Iron and Brass Work* followed, as well as *Ancient Timber Houses*, and the second volume of a work commenced by his father, *Examples in England*, all in 1836. Besides, *The Vicar's Close, Wells*, was published by T. Larkins Walker, with plates drawn from Welby Pugin's sketches and measurements.

His first tilt with prevailing architecture was also published in 1836, under the title *Contrasts ; or a Parallel between the Architecture of the Fifteenth and Nineteenth Centuries*. This work surprised by its originality and earnestness, and although the method adopted by its author was adversely criticised, the sentiments eventually won.

"The Contrasts themselves consisted of twelve pages of illustrations. On each was depicted, side by side, a type of building or architectural feature used for a particular purpose belonging to the Middle Ages, and one serving a similar purpose in Pugin's day. The former was taken from a specimen altogether favourable, and was idealised, while the latter can hardly be described as less than a *travestie* of existing work. In this way a strong contrast was obtained. Thus we have contrasted parish churches, one being the glorious Gothic church of St. Mary Redcliffe, at Bristol—perhaps the finest parish church in England ; and opposite, the church in Langham Place, London, with its round portico, surmounted by a balustrade. St. George's, Windsor, with the ministers clad in mediæval vestments at the altar, is then contrasted with the picture of the Chapel Royal at Brighton, with the preacher in the pulpit, and the royal party in the gallery opposite, looking entirely like a large box in a theatre. . . .

"As no publisher was willing to bring out the book, Pugin determined, with characteristic vigour, to take all the risks himself, and had it printed at his own expense. . . . He lost a considerable sum ; but the book made his reputation. Notwithstanding his attack on the Establishment, the press and the public appreciated his earnestness and accepted many of his conclusions. People did not, indeed, accept his theories that everything debased was due to Protestantism, and, not without justice, pointed to the fact that in countries such as, for example, France, which had remained Catholic,

the decadence of art was no less, if indeed it was not much greater, than in Protestant England."

This foregoing is an extract from Monsignor Ward's interesting *Sequel to Catholic Emancipation* (Longmans, 1915), in the first volume of which the author devotes two chapters to Pugin, who was received into the Roman Communion in 1834, and who "had a large share of influence in the history of Catholics of the time." Pugin's connection with influential or prominent Roman Catholics, devoted toil in preparations for opening ceremonies of new churches, attempts to restore old English vestments, aspirations in regard to reform of Church music, are amongst subjects touched upon in this work. Considerably more than one-half the chapters is devoted to polemical discourse from his works, details of the revival of the Cistercian rule, and like matters important in the *Sequel* narrative.

Pugin's *Contrasts* cleverly depicted types of differences. Some of his original sketches, manuscript and other illustrations added to a later edition are bound in a copy preserved in the British Museum library. The sketches which illustrate spiritless building of his time historically are correct. His representations recall want of artistic instinct and understanding. They recall the meagre rendering of Classic architecture and deplorable attempts to copy Gothic. Contentious matter of his writing could be left unread. He shows, for instance, side by side a mediæval conduit and the erection over a London pump in his day. He contrasts a poor-house of his time with a mediæval hospital. Wherein the sketches either of St. George's Chapel, Windsor, or of the Chapel Royal in Brighton are incorrect it is not quite easy to see. Had he set opposite Nash's church of Langham Place a mediæval church of comparative cost, the difference still would have been striking. He expressed a hope that it would not be imagined he acted from private feelings towards those modern architects whose works he placed in comparison with similar edifices of a more ancient period. Allowance can be made for comparative youth, yet in sketches, not here noticed, thrusts at the Established Church following submission to another obedience were scarcely in the best possible taste. The theory that everything debased was due to Protestantism was modified in his preface to the second edition of 1841. He admitted he was wrong in treating Protestantism as a primary cause instead of being the effect of a more powerful agency. Earnest in revolt against whatever was commonplace, barren, or unsatisfactory he unhesitatingly depicted and censured what he considered wrong in his own Communion. He showed the altar of a Roman chapel in a version of Classic then favoured, still to be seen in some parts of England and in Ireland, contrasted with a reasonable, if somewhat ornate, altar in a mediæval church. He likewise illustrated an Anglican communion table in a neglected chancel, a not uncommon sight. The Classic setting indubitably is travestied, bringing to mind a similar tendency in the writings of Charles Dickens when his feelings were aroused. Common ground was found in the want of reverence for works of the past, those of the English heritage especially. Speaking of ancient churches in England, he much questioned the probability of finding sufficient numbers of Roman Catholics in any one place who would understand much better than their possessors the real use of these vast piles, which he supposed "would be condemned as inconvenient and uncomfortable, and by no means comparable to the new galleried assembly rooms used for Catholic worship at the present day, and which have even been built under the very walls of our venerable Cathedrals." He sternly denounced the neglect and decay and destruction of English Ecclesiastical buildings. He came to a conclusion that the architecture of English churches would have fared little better under a Roman hierarchy. He cited Montalembert's descriptions of barbarities in France published after 1836, and confirmed the truth of many by actual observation. Architecture, he complained, was ruled by whim and caprice, hence the erection of Swiss cottages in a flat country, Italian villas in the coldest situations, a Turkish kremlin for a royal residence, Greek temples in crowded lanes, and Egyptian auction-rooms. The potent influence of these and later exertions directing and strengthening rectitude of aim assimilated with labours of others high-minded, others, not only in the sphere of art, who wanted to get at the truth of things though in all matters unable to see eye to eye with Pugin.

From the time of the great output of publications in 1836, when he was twenty-four years of age, his course as a practical architect commenced, and John Talbot, sixteenth Earl of Shrewsbury, with whom he had been acquainted since 1832, became his close friend and patron. Meanwhile he had built himself, at Alderbury, outside Salisbury, a house in the style of the fifteenth century, which he called St. Marie's Grange. His practice rapidly increased, but it was not until he sold the house in 1841, and after temporarily residing in Cheyne Walk, Chelsea, that he settled in Ramsgate, where he built another house for himself, and erected a church at his own expense in close proximity. As money could be spared, so the church progressed. On the land and church and fittings no less a sum than £15,000 was expended.

Throughout his career, until near the close of life, he worked unassisted from early morning until late at night, and conducted his own correspondence. When urged to employ a clerk he answered : " A clerk, my dear sir ?—a clerk, I never employ one ; I should kill him in a week." Of his restorations mention may be made of Grace Dieu Manor and St. Mary's, Beverley, but it is difficult to indicate with brevity the amount of work executed from his designs. A bare enumeration of the buildings, colleges and community-houses, but chiefly churches for his own Communion, in Ireland as well as in England, some churches for Anglicans, and large country mansions, produces an astonishing list. For many other churches he designed fittings, glass, decorations, sacred vessels, hangings and vestments. A list of these it would be wellnigh impossible to compile. The habit of literary work and illustrating was strong upon him ; it may have been that he sought in it welcome relaxation. Generally he had a book or pamphlet under way, and then he seems to have cruised in his yacht, sometimes for days together. For the multitude of illustrations he etched all the copper plates, many even while cruising ; the motion of the sea made no difference to him.

Beyond exertions single-handed in designing and drawing and superintending all his buildings and fittings and decorations, another and gigantic task he performed added greatly to his fame. He submitted no design for the Houses of Parliament himself, although he made all the drawings for Gillispie Graham, and the composition to some extent was his. Asked why he had not competed himself for the prize, he candidly acknowledged : " Barry's grand plan is immeasurably superior to any that I could at the time have produced ; and had it been otherwise, the Commissioners would have killed me in a twelvemonth. No, sir, Barry, after all, is ' the right man in the right place ' ; what more could we wish ? " After the premium was awarded in February, 1836, the work of detailing for Barry commenced to make demands upon his time and powers. Barry was forty-one years of age, and Pugin was then approaching his twenty-fifth year. Acknowledging the receipt of drawings of the House of Lords and the King's Stairs, 22nd October, 1836, Barry could but wonder that Pugin had accomplished so much in the time, whatever that might have been. " I am not much surprised to hear that your health suffers from excess of application," he added. " Do not, however, I beseech you, carry too great a press of sail, but take in a reef or two if necessary in due time." The river wall was begun the next year, the first stone of the building was laid in April, 1840 ; in 1849 the House of Lords was used, and the Houses were formally opened in 1852. Barry frequently visited him in Salisbury, and Pugin devoted part of his time and talents to this vast undertaking for many years. He was on the road which would enable him to get carried out such variety of work in the style of the great building when he was officially entrusted with internal fittings, furniture, decoration, and encaustic floors.

While educating himself Pugin had educated others. The work of training carvers early in his career and the business venture have been already noticed. As wants arose for work of all sorts to be supplied for his buildings firms were approached to assist him in getting it done. Tradition points out a room at Oscott where on Saturday afternoons he instructed craftsmen from Hardman's, of Birmingham. By associating himself with Herbert Minton, of Stoke-upon-Trent, the lost art of making encaustic tiles was recovered. Bands of workmen were gradually trained to interpret his sketches, drawings and cartoons, with guidance and direction from him at frequent intervals. Had it

been otherwise he would have been unable to complete his buildings, neither would the Palace of Westminster have been finished in the limited time. Nor could have been brought together at the Great Exhibition of 1851 so much work in the mediæval manner, altars, shrines, tapestries, painted windows, sacred vessels, metal-work, and other ecclesiastical fittings, and vestments, besides beautiful wrought gold and silver jewellery, entirely executed from his designs under his personal direction. To Bruce Allen he wrote : " I have been all my life instructing men," adding, peevishly, it must be admitted, " while others profited by the result of my labours." But the letter from which the extract is taken was written when in very bad health, six months before his death in 1852. He had previously written : " After three centuries of neglect, and the loss of the ancient traditions, and of the very means employed by the old artists, it was no easy matter to reproduce their skilful works in all their variety. A few years ago it was impossible to procure the commonest articles of church furniture in any but the most debased style—not a carver in wood or stone, and in metalwork such was the difficulty of procuring operatives that I was compelled to employ an old German who made jelly moulds for pastry-cooks as the only person who understood beating up copper to the old forms." . . . " I am quite willing to admit that many of the new churches that have been erected on the old principle are full of defects, but in reviving a long-lost art this was unavoidable."

Generally Pugin's buildings proclaim the fact that he was hampered by lack of funds. St. George's, Southwark, cries out for a facing nobler than brick. The interior is very striking, and from more than one point of view, despite loss of height enforced by severe cutting down. For St. Giles's Church at Cheadle in Staffordshire he appears to have had money unlimited, though it would have been of great advantage had this liberality been foreseen. The church, with spire, lychgates, boundaries, and churchyard cross, all built of red sandstone and the required oak timber from the Earl of Shrewsbury's estate, the interior throughout most lavishly furnished and rich in colour, Pugin himself at one time thought almost faultless. A few years afterwards Lord Shrewsbury testified that he abused it as much as everything else he had done. With the adjacent community-house Lord Shrewsbury spent upon it £100,000. An outlay of £5,000 was suggested for the church when the work commenced. Exemplifying the recovery by one man unaided of so much of the spirit and significance of a mediæval church, the aim Pugin frankly had in view, it is a building of singular interest. The town possesses but one or two timber-and-plaster houses, of the market cross merely the platform and steps, and a parish church that has been rebuilt.

Pugin is sometimes adversely criticised because it is supposed that he might have spent more money upon the structure and less upon the interior of churches. The fact that interior decoration and elaborate fittings often were gifts of generous persons who left the work to his judgment is generally overlooked. Almost at the end of his life he wrote : " In most cases churches are commenced on a cheap principle, and when carried up and too late, some persons are anxious to improve the effect, and then gold-leaf and colour are introduced to supply that richness which would have been far better produced in carved stone, and, if originally designed, at much the same cost." The arrangement of many of his churches has been interfered with. Features have been moved and refixed in other positions. Inappropriate fittings and decorations were added even in his lifetime. The brass lectern in St. George's, Southwark, is an example of beautiful work that he designed and had carried out in a worthy manner.

The sincerity of his views, which stirred people to think seriously, cannot be in doubt—" when luxury is everywhere on the increase, and means and money more plentiful than ever, to see the paltry buildings erected everywhere for religious worship, and the neglected state of the ancient churches, it argues a total want of religious zeal, and a tepidity towards the glory of Divine worship, as disgraceful to the nation as it must be offensive to the Almighty." Quite early his indignation was aroused not only by the wanton havoc in Salisbury Cathedral under the plausible guise of improvements, and by Wyatt's ignorant destruction in the cathedral churches of Hereford and Lichfield, but on contemplating effects

of long neglect in Oxford. In no less degree was he horrified by what he saw at Malvern ; " two hodfulls of mortar," he says, " got to repair the church, and the remainder of money that had been raised expended in putting the arms of subscribers in stained glass in a window of which the very mullions were rotten and falling."

Naturally he shrank from Brummagem " Gothic " and pointed to household articles and wall papers absurdly designed. He also censured " extravagant and ugly draperies, useless as protection from cold, depositaries of thick layers of dust, and in London not infrequently the strongholds of vermin." The rational design and use of fringe he easily discoursed upon.

He made the acquaintance of Oscott College on the introduction of Lord Shrewsbury in 1837. In this year *Contrasts* had been read in the refectory during dinner. Almost at once considerable work was carried out at the college and chapel from his designs. " Pugin's nightcap " is the name given to a turret he added to the tower. From 1838 until 1844 he held the title of Professor of Architecture and Ecclesiastical Antiquities. A room in which he lectured still bears the inscription " Architectura." Objects of antiquity were arranged under his supervision in a museum. His light-hearted manner, his loud voice giving directions, and ringing laugh often heard, are recalled in reminiscences contributed to *The Oscottian* by one who knew him. This friend described him as rather below ordinary stature, with thick-set figure, long straight black hair, and an eye that took in everything. In those days the style of his dress inclined to that of a dissenting minister of the time with a touch of the sailor—wide-skirted black dress-coat, loose trousers, shapeless shoes with strings carelessly tied, and a low-crowned battered hat. He travelled without luggage, but had a cloak furnished with many and capacious pockets for stowing away his goods and chattels. A course of lectures he commenced in January, 1838, greatly influenced superiors and students. The lectures were published in book form in 1841 under the well-known title, *The True Principles of Christian or Pointed Architecture*. Masterly analysis enabled him to enunciate incontrovertible conclusions, elemental truths. At the same time he pressed his conviction that as Classic art logically is Pagan, " Christian thought in Pagan costume is a discord in architecture and art."

To understand something of his antipathy to Classic art allowance must be made for what he saw around him : in his own Communion in England and in Ireland persistent preference for chapels in late Italian style, planned not unlike assembly rooms, with vulgar internal display, tawdry ornaments, artificial flowers, and cheap plaster figures ; in the Establishment the erection of churches resembling Greek temples with like disregard of the tradition he so much revered : in fact, and as it appeared to him, entire want of propriety. He looked for Christian emblems and badges and saw those of pagan significance. In vain he sought plans commensurate with those of a Gothic church. Ecclesiology was unfamiliar ground. Guidance was sadly needed. With an ardent desire to build a church in every respect worthy, Pusey, in 1843, employed an architect for the new church of St. Saviour, Leeds. But Pusey was called upon and perplexed to answer and decide questions which were not much in his way. What should be the material of the reredos—wood or stone ? What was to be the place and size of the porch ?—what the position of the organ ? How were the angels in the Ascension in the painted glass to be robed ? What was to be the colour and the pattern of the altar cloth ? What designs were to be adopted for the needlework on the pulpit, faldstool and credence ? (*Life of Edward Bouverie Pusey*, H. P. Liddon.) Pugin would have asked no such questions in his earliest years. If necessary he would have made the designs on the spot without a moment's hesitation. He would have held to the ancient form and arrangement according to the principles and formularies of the Anglican church. Such a building undoubtedly Pusey wanted ; he had decided upon the Gothic style. Pugin would have shown " the Anglican church requires bell-towers, spires, naves, chancels, screens, fonts, altars, sacred symbols and ornaments. I will ask whether the types of these are to be found in the ancient pointed churches of England, or in the classic temples of antiquity." . . . " It is the devotion, majesty, and repose of Christian art for which we are contending ;—it is not a style but a principle," he would have said of sculpture and painting.

With superb illustrations in colour and many beautiful woodcuts, his great work, *A Glossary of Ecclesiastical Ornament and Costume*, appeared in 1844. The text consists of extracts from the works of Durandus and others translated by Bernard Smith, of Oscott College. The joint translation of the First Book of *The Rationale* by John Mason Neale and Benjamin Webb, with their *Introductory Essay*, had been published the previous year. Dr. Daniel Rock had already given the world *Hierurgia*. These with Pugin's illustrated work made a notable trio significant of earnest aspirations animating many Englishmen of the time. Pugin's book also stimulated a revival of polychromatic decoration. It may truly be said that this was one of his works from which great benefit has been reaped. Whatever is due to those who now may be held authorities, they owe much to Pugin's original research and to his splendid explanatory illustrations.

Both Neale and Webb were founders of the Cambridge Camden Ecclesiastical Society, to the labours of which Pugin, in *Contrasts*, paid a high tribute of respect and gratitude. Webb knew Pugin intimately and said of him that "his knowledge of Third Pointed detail was unrivalled." Dr. Rock and Pugin were brought together at Alton, Lord Shrewsbury's seat in Staffordshire, to which Pugin made extensive additions with the towers that gave it its later name.

The friendship with Webb may be said to have put Pugin in touch with Cambridge; in all probability Neale and others were amongst his friends. At Oxford his opinions were held in high esteem. He was acquainted with the Tractarians, leading members of the Party corresponded with him, and in company with Wiseman he was blamed for tenderness and kindness to them. John Rouse Bloxham, the historian of Magdalen College, brother of Matthew Bloxam, and sometime with Newman at Littlemore, was one of his most intimate friends. His only work in Oxford was the gateway of Magdalen College. The design for Balliol College Chapel and buildings is said to have been unusually fine; although it was approved, the then Master refused to sanction the employment of a Roman Catholic architect.

Two other works he published place him high amongst authorities on mediæval art. First, *Floriated Ornament*, 1849, a very beautiful book of twenty-seven sheets of consummate little designs, intended chiefly for stencilling, and other sheets of old examples from East Anglia, all printed in colour, the nomenclature taken from a very curious and beautiful botanical work, *Tabernæ montanus eicones Planatarum*, Francfort, 1590. Ancient examples instanced are those in the churches of Randworth, Hunstanton, Trunch, Southwold, Blythburgh, and Long Melford. The objects in view were the leading of designers back to first principles, and assistance in removing a reproach of servile imitation of old designs. Convinced that the finest foliage work in Gothic buildings approximates closely to nature, and remarking upon the advantage of important botanical discoveries, he advocated the study of plants whereby by adaptation and disposition designs new in form and beautiful would be evolved. Rightly he urged that the constant reproduction of old patterns without reference to the natural type leads to debased forms and spiritless outline, in the end to a mere caricature.

A Treatise on Chancel Screens and Rood Lofts, with drawings of ancient screens of every kind, appeared in 1851, his last work, and a valuable treatise, the result of much study and research, containing, however, severe strictures upon disregard of traditional arrangement. Four sketches with a definite purpose are strikingly penned—"the Calvinist Ambo-noclast," picturing old London and its ancient churches, the most powerful of all, carries the reader right on to the conclusion with a vivid narrative of fanatical destruction.

The book was published at the time of the Rood Screen Controversy amongst Romans in England, to which the erection of the screen and rood at St. George's Cathedral, Southwark, gave rise. Pugin is conspicuous throughout a chapter Monsignor Ward gives to the subject in his second volume. He had reigned supreme over the destinies of the architecture of his Church, but eventually divided it into two parties over the very question of the screen which, as characteristically Catholic, he considered essential. "The screens once gone," he said, "the chancels will follow, aisles, chapels, apse, all, and

the Cathedral sinks into an Assembly-room." The rood screen is still a matter of controversy ; it seems that one of the strongest arguments against erecting a screen at all is that experience shows that sooner or later someone will pull it down ; and, Monsignor Ward adds, some of Pugin's best screens have gone many years ago. His differences with Oratorians figure largely ; they fell out completely with him in the end when he resolutely refused to give way to their wish for a building designed in the style of Rome. But Newman wrote : " Mr. Pugin is a man of genius ; I have the greatest admiration for his talents, and willingly acknowledge that Catholics owe him a great debt for what he has done in the revival of Gothic amongst us. . . . Now for Oratorians. . . . We do not want a cloister or Chapter Room, but an Oratory. I, for one, believe that Gothic can be adapted, developed into the requisitions of an Oratory. Mr. Pugin does not : he implied in conversation with me in Rome that he would as soon build a Mechanics' Institute as an Oratory." Pugin was at this time nearing the close of his career. Although as anxious for the welfare of working men as Ruskin who followed him, in his view mechanics' institutes were " a mere device of the day to poison the minds of the operatives with infidel and radical doctrines ; the Church," as he put it, " is the true mechanics' institute, the oldest and the best. She was the great and never failing school in which all the great artists of the days of faith were formed." Ruskin, on the other hand, lectured and helped at the Working Men's College. Here he encouraged study of natural plants much as Pugin had advocated. In other respects unconsciously he followed a track Pugin made, and after 1875 it was rumoured that he inclined to the Roman Church. Probably he lived to regret the attack upon Pugin in an Appendix to *Stones of Venice*, which thoughtful people perceived betrayed prejudice against Pugin's religious belief. It must be noted, although Pugin was then at rest, that Ruskin before delivering his inaugural address at Kensington Museum in 1858 thanked the chairman, Professor Cockerell, for his support on the occasion, and asked pardon for any hasty expressions in his writings which might have seemed discourteous towards him or other architects whose general opinions were opposed to his. Whatever opinion may be formed of Ruskin's lapses, there can be no room for doubting that Pugin deliberately chose certain terms and these he employed without hesitation. Newman clearly saw a consequence. " If Mr. Pugin persists, as I cannot hope he will not, in loading with bad names the admirers of Italian architecture, he is going the very way to increase their number." And yet Pugin's power of discrimination was well exercised. He ably drew the distinction between constructed ornament and ornamented construction. By this same token we know Pugin. But he is identified also with his generic term " Pagan " freely applied to comprehend all work other than Gothic. The admirers he labelled accordingly, an inveterate habit, as Newman well knew. Mr. Wilfrid Ward relates that he naturally looked on with suspicion and anxiety when Wiseman arrived at Oscott. A man who had lived in basilicas for twenty-two years could scarcely be free from Paganism. (*Life and Times of Cardinal Wiseman.*) Possibly Pugin would have been influenced by such an Essay as that of George Gilbert Scott the younger (1871), and by study of *The Apocalypse*, unconnected with prophetic and spiritual interpretation, he might have discovered a Christian basilica idealized.

Sorrow had come into his life on the death of his second wife, and then a sense of desolation. Severe trials followed. In two instances engagements were broken off after he had formed deep attachments. He visited Italy for the first time in 1847, where he was dissatisfied with everything Classic ; but Gothic work, especially in Northern Italy, gave him pleasant surprises. In 1848, having remained a widower for five years, he married Miss Knill in St. George's Cathedral, which had recently been opened. In less than four years sad illness overtook him, his mind became unhinged, and he died at Ramsgate on September 14th, 1852. Within a few miles Arthur Wellesley, Duke of Wellington, died the same day. By his three wives Pugin left eight children. The British Government rightly recognised his services to the nation and placed his widow on the Civil List.

Pugin's knowledge of mediæval buildings of all kinds in England was extraordinary. Acquaintance with them commenced as a boy in company with his father. By 1837 he had visited every cathedral

establishment, and not in a casual manner. He endeavoured to stir up authorities to a sense of responsibility by calling attention to the lamentable state of decay and neglect of the cathedral churches of Durham, Ely and Carlisle ; the abbey churches of Westminster and Tewkesbury ; the collegiate church of Selby, remarking that the great tithes were in the possession of a Catholic gentleman ; and amongst a host of others the parish church of Cromer and nearly all the fine churches of the Norfolk coast. His studies, however, were not confined to ecclesiastical buildings. Observation led him to remark that in some rural districts where workmen had not been influenced by modern ideas, barns, sheds and like structures, " till very lately," were built and framed on the true old principles with braces, knees, and the high pitch.

He made numerous visits to the Continent, some of short duration, others prolonged tours. In one of his letters, about the year 1833, he wrote : " I expect to sail next Thursday for France, and if the wind proves fair I shall soon be up to my ears in dilapidated chateaux, ruined abbeys, ancient libraries, venerable cathedrals, ancient towers, and splendid remains of every description of the middle ages." That he made good use of museums and picture galleries is apparent from photographs of his masterly sketches published by S. Ayling, bound in book form. His handling of subjects is remarkable, exquisitely delicate, as for example in sketches of reliquaries from the Treasury of St. Stephen, Vienna, and figures from the west front of Amiens Cathedral, and, as in interior views of the Dom at Ulm, with powerfully represented chiaroscuro. Some of the sketches are dated—1832-3 Bruges, 1837 Evreux, 1844 Cologne. In 1840 he travelled to Basle in a dreadful thunderstorm. " Those who had any luggage got it soaked," he wrote ; " thanks to my large pockets and mackintosh I escaped dry. It is quite delightful to travel without encumbrances. I care nothing for custom houses and baggage officers. I have everything about me, and cannot leave anything—it is the only way to travel with comfort." Whenever he moved about the country in England he requisitioned a gig so that he might be independent and stop to examine every old church that he came across on the way. He delighted in country scenery, had an excellent eye for colour, and was a good landscape artist. Herein affinity with his friend Clarkson Stanfield is discovered. The two men had much in common. Both were devout members of the same church, each inherited a taste for drawing ; they were blessed with great energy, in scene-painting had achieved success, and they were equally lovers of the sea. A difference in age of twenty years—the younger man was Pugin—counted as nothing.

Amongst other numerous friends Stanfield counted Professor Cockerell, a brother Academician and a near neighbour in Hampstead, to whom he was anxious to introduce Pugin. Having done so one day he left the two in conversation. Afterwards he asked each of them what he thought of the other. Pugin said of the Professor : " The man is a great artist, though I don't believe in the style he works in." . . . " The most earnest and enthusiastic man in his profession, and has the greatest belief in it of anyone I have ever met," was Cockerell's impression of Pugin. More than likely Stanfield was acquainted with a book, *An Apology for the Revival of Christian Architecture*, Pugin published in 1843. The preface, with no less violence of expression than daring, attacked the Royal Academy for permitting the Professor of Architecture " to poison the minds of the students by propagating his erroneous opinions of Christian architecture." Pugin also condemned as unsuitable the Professor's buildings for the University of Oxford. The Professor was Pugin's senior by twenty-four years, a man of immense goodness of heart like Pugin himself, but with broader sympathies and a greater man. He deplored no less than Pugin the long severance of religion from the fine arts. Appreciation of mediæval art led him to make a particular study of sculpture at Wells, Lincoln, and other cathedrals, though, unlike Pugin, he is distinguished also for sympathy and profound acquaintance with art of other forms. In method of work he was the very opposite of Pugin. His designs were made and considered in little studies softly pencilled, often not so much in outline as in shading. They were developed with much patience. In using the pencil, the studies seem to tell one, Cockerell felt the reality of his conception as a sculptor modelling material. Pugin, on the other hand, drew his designs rapidly, and never

deigned to revise. The design was in his brain distinct ; without hesitation he pencilled or penned it in, and he never rubbed out or altered. Reconsideration in some instances would have resulted in work of higher order, as, for example, descending to detail, buttresses and pinnacles at his Southwark Cathedral seem to witness. He generously observed that other men had surpassed him in their work after he had given the key to the use of knowledge which in theory they already possessed. He had powers sufficient but attempted too much. Time and patience were needed.

The drawings from his hand in the R.I.B.A. collection are eighteen small and slight working drawings, including a design for a font at Manchester, of which a perspective view makes the nineteenth sheet. A canopy with Madonna, dated 1845, is amplified by a note written upon the sheet to Mr. Myers : "I don't think the sketch I sent you for the B. Virgin for Mrs. Petre's altar was late enough in style. I now send you a later one. Of course the whole front will be cut in bas-relief. The carving should be strictly of the same date as the chantry." Another canopy with a statue of Our Lady has a diptych enclosure. Other designs are dated—an altar, 1847 ; a pulpit, 1848. The drawings, for work late in his career, prove that the designs and moulding contours were made in ink with lightning rapidity, the barest rough outline with like rapidity first having been lightly pencilled. The note to Myers is interesting, showing that Pugin knew the man to possess a knowledge of characteristic carving. Myers was a builder he had trained, and whenever possible he employed him. In his turn Myers got together a staff of carvers who understood Pugin's requirements.

Desire to glean information in Salisbury had been gratified on visiting The Hall of John Halle, still used as a showroom of the china-ware business established in Pugin's day. He was greatly interested in the old building and gave advice on the structure, contemporary glass and other features. Obligation to the present manager of the business for two characteristic stories must be acknowledged. To commence the coat-of-arms upon the end wall of the hall Pugin rose exceptionally early and worked for eight hours without a break until he had completed it in colour with his own hand. The device can be seen in morning light, the light in which it was painted. The other story is connected with St. Marie's Grange, where he used an upper room in a tower having a movable stair, which he drew up. His habit was to work here in seclusion for days together. The simple food of which he partook was brought only to the foot of the stairway.

St. Marie's Grange, on the hillside near Alderbury, can be reached from Salisbury by the Southampton road. It stands on the right hand at the head of a branch road which descends to Longford Castle, skirting a plantation next the Avon, while the main road ascends the hill. Within a garden on the turn of the lower road the house is enduringly built of brick with the features in stone. Monograms formed of dark headers in faces of a tower attract attention. An excursion on foot calls for a rest and it is worth while to descend to a cottage on the right, and afterwards to cross the rapid river here by ferry for the sake of the view of the house, and, in fine weather, for an interesting walk across meadows and past The Moat at Britford back into Salisbury by way of Harnham Bridge. St. Marie's Grange has a garden on the south gently rising from a stretch of meadow almost level with the water. The horizontal line of the long enclosing wall passes a couple of poplars standing in company within the garden. A parallel wall above retains the terrace which carries the house rising square and towering a little beyond. High-pitched roofs, peaks of towers and ornamental weather-vanes group with a bell-turret and tall chimney-stacks. On the east, lofty spreading cedars adjoin the plantation ; a glimpse of distance—the hill brow furnished with firs—appears between the house and stable outbuildings overshadowed by trees on the west. The view is one that Barry, in company with Pugin, probably crossed by ferry to look upon.

The small church of St. Osmund, in Salisbury, stands due east of the cathedral, just without the precinct. A north aisle has been added, and Pugin's plain round columns and simple moulded capitals of the south arcade have been transformed, regrettably, to match the new. Some of his interior fittings remain untouched ; a small coloured Rood and figures are noticeable. The signed small scal-

drawings have been recovered for the archives of the mission. They would, as would the drawings in the R.I.B.A. collection, disappoint expectation of finished draughtsmanship ; with figured dimensions they were sufficient without an unnecessary line.

Not unlikely he pondered very early upon the subject of heraldry ; it must have claimed his attention constantly ; the "Classification of Ecclesiastical Ornament" in *The Glossary of Ecclesiastical Ornament* naturally is reminiscent of the subject ; it came before him and sound knowledge was essential when detailing Alton Towers and the Houses of Parliament. His own armorial bearings he proudly used in reasonable fashion. Less informing than his emblazoned wedding card, the armorial bookplate of Gothic design, Franks Collection, is printed in red, and a necessary indication of tincture is overlooked. The full name of his father, writes Monsignor Ward, was Augustus Charles Comte de Pugin, and he came from Freiburg-im-Breisgau. The elder Pugin was born in France, writes Ferrey, and descended from a family of distinction : a nobleman who raised soldiers for the service of Friburg in 1477 was an ancestor. Neither the family nor arms are recorded in published armorials of France or Switzerland. His motto, "En avant," was first suggested to Welby Pugin by the great success of *Gothic Furniture*. The three Christian names, Augustus Welby Northmore, Ferrey relates, appear in the inscription he wrote for the slab placed over his first wife's grave in the Priory Church, Christ-church, Hants, the only instance in which he appears to have used them, and here he also prefixed the French "de" to the surname. The prefix is again revived in the bookplate ; "Augustus de Pugin" is inscribed below the arms.

Throughout life disregard of personal appearance in the matter of dress was one of his characteristics ; what has been called his slovenliness amounted to eccentricity. Ferrey testified that about the period 1839 he was in the habit of wearing a sailor's jacket, loose pilot trousers, jack-boots and a wideawake hat. In one of his letters to Mr. Osmond after his signature he added "Freemason, though not a member of the man-milliners' lodge." The appellation "man-milliner" is generally used in a contemptuous sense, signifying supposed trivial attention either to clothing or apparel such as uniforms or Ecclesiastical vestments. Pugin was not entirely regardless of matters of the kind ; at work in his study he wore a black velvet gown designed by himself ; he vested in cassock and surplice for Prime and Compline in his private chapel. Subsequent letters to Mr. Osmond conclude "Your most sincere friend and fellow-craft," and "Your most sincere friend and fellow-mason." It might be supposed he belonged to the College of Freemasons of the Church ; but reference to the *Laws of the College* show that this curious brotherhood was "founded on Advent Eve in the year of our Lord and Saviour one thousand eight hundred and forty-two." The last of the letters above quoted is dated January, 1834.* He was interested greatly in the proposal of an earnest clergyman for founding a club to be called "The Old English," and intended to be accommodated in a building of Gothic design, at about what date seems unrecorded.

Three portraits of Welby Pugin at least are extant, and picture him at three periods of life, apparently in his twenties, in his thirties, and towards the close of his career. A lithograph of a crayon drawing from recollection by Joseph Nash shows the young man's self-reliant face, clean-shaven, with much of his father's good looks, and long dark hair curling under at the ends. He wears open coat and waistcoat, and a turn-down soft linen collar with a dark tie or stock wound round the neck below it. The second portrait shows cheeks somewhat fallen in, otherwise features well rounded ; a high brow, and intelligent and kind eyes. The face is happy and winning, suggesting something of the ascetic, as indeed he then was. The cloak is high, and a white collar which shows in front and a little above it helps a first impression that this portrait in the National Portrait Gallery by an artist unknown is that of an ecclesiastic. The third portrait, painted by Herbert, is less attractive. His left hand is upon a parallel rule, an instrument with which he invariably worked in preference to a T-square, and

* Mr. Osmond was a mason-sculptor. The business under the name survives in Salisbury. Pugin's Letters to Mr. Osmond are stated to be in the Salisbury Public Library.

compasses are held in the right hand. The portrait was photographed by the Arundel Society for the record of the National Portrait Exhibition, 1868. A shaven face and long hair prevail to the last.

Pugin's brusqueness of manner must sometimes have been against him. Yet he endeared himself to all who really knew him, and it is said he was idolised by the workmen and craftsmen with whom he came in contact. When he differed from others he spoke out with directness and honesty. Even to his intimate friend and patron he refused to give way when he felt his own judgment to be best. "My dear Lord Shrewsbury,—I cannot admit that I am to blame respecting the design of the dining-room. Of course I intended to make a fine thing, suitable for the purpose to which it is destined, and not a common room and fit only for a hotel. . . . If I am not enabled to exercise my judgment, and make use of my knowledge and experience, I am reduced to the condition of a mere drawing-clerk to work out what I am ordered, and this I cannot bear; and so far from knocking under, I really must decline undertaking the alterations unless your lordship will consent to its being made worthy of your dignity and residence. . . . And as regards the hall, I have nailed my colours to the mast—a bay window, high open roof, lantern, two good fireplaces, a great sideboard, screen, minstrel gallery—all or none. I will not sell myself to do a wretched thing."

With perfect candour he acknowledged his own shortcomings. "I have perpetrated many of these enormities in the furniture I designed some years ago for Windsor Castle. At that time I had not the least idea of the principles I am now explaining; all my knowledge of pointed architecture was confined to a tolerably good notion of details in the abstract; but these I employed with so little judgment or propriety that although the parts were correct and exceedingly well executed, collectively they appear a complete burlesque of pointed design" (*True Principles*, 1841). "In my own case I can truly state that in buildings which I erected but a short time since I can perceive numerous defects and errors, which I should not now commit; and but a few years ago I perpetrated abominations. Indeed, till I discovered those laws of pointed design which I set forth in my *True Principles*, I had no fixed rules to work upon, and frequently fell into error and extravagance" (*Revival of Christian Architecture*, 1843). "After the most patient investigation I have been compelled to adopt the conclusion that the most fearful acts of destruction and spoliation were committed by men who had not only been educated in the ancient faith, but who were contented externally to profess its doctrines. I had originally fallen into popular errors on these matters in some of my early publications, and it is but an act of justice to affix the odium of the sacrilege on those who are really guilty" (*Treatise on Rood Screens*, 1851).

How this man with a somewhat uncouth exterior, as it seemed to some, could be touched is evident from the breakdown of his effort to respond to Dr. Wiseman's expressed thanks for his exertions especially during the last week of preparation for opening Oscott College in 1841. When the whole company rose to drink his health, after a few broken sentences in reply he sank down on his chair and burst into tears. All who knew him loved him for his very kind spirit. He was the father of the poor in Ramsgate, and unostentatiously relieved without distinction of country or religion. He was always prepared in the roughest weather to push off in his cutter to the rescue of a vessel in distress on the Goodwins, and to those who were in distress he supplied immediate necessities, lodgings and medical aid until they were well. A chest was kept in his hall filled with entire suits of clothes. He gave a Christian grave in his own churchyard to those who died recipients of his bounty, and placed a record above them.

Reminiscences or biographies of notable people as they have come to be written in the last few years occasionally throw a little light upon Pugin's career, and details of personal relics other, for example, than bookplate and drawings might be collected. But for those who wish to become better acquainted with his personality—his buildings they should see—Ferrey's *Reminiscences of A. N. Welby Pugin and his Father Augustus Pugin*, is the standard work. Mr. Paul Waterhouse's fine piece of condensed

writing in *The Dictionary of National Biography* is an epitome with a list of other authorities consulted. Another article will be found in *The Catholic Cyclopædia*. Monsignor Ward, in the setting of *The Sequel*, enshrines Pugin's memory in graphic history of the Church of which he was a devoted son.

. Since the foregoing was written, over two years ago, my attention has been drawn to articles on Pugin in some early issues of *The Architectural Review*.—H. S.

PROPOSED NATIONAL WAR MEMORIAL AT WESTMINSTER ABBEY.

By WILLIAM WOODWARD [F.]

THE JOURNAL of the Institute has recently referred to suggestions to provide a fitting and worthy memorial to the brave heroes, men and women, who have given up their lives for their country's safety and honour. Some of these suggestions, good as they are, are impracticable by reason of great interference with existing property, and of enormous cost in execution. The scheme which is outlined on the two plans submitted herewith is thoroughly practical, and involves only the clearance of the site of the houses between the Chapter House and Great College Street, and there is no interference with any structure of architectural or archaeological interest. I have, during the last two years, devoted myself to making a complete set of drawings of the proposed chapel.

The houses in Abingdon Street and Old Palace Yard, the freeholders of which are, for the greater part, the Ecclesiastical Commissioners, approach the termination of their leases. In April, 1917, I wrote to the Secretary of the Ecclesiastical Commissioners informing him that I had heard that the Commissioners were proposing to let the site, and I referred to my scheme to utilise the site for a Public Improvement and a National War Memorial Chapel. He replied that the Commissioners had not under consideration any scheme for the rebuilding of their property, but that it would be a question, mainly, of opportunity when the site should be re-developed. Whatever may be done with regard to my scheme, I sincerely trust that the Ecclesiastical Commissioners will be sufficiently patriotic, and will have due regard to the splendid improvements at this particular spot in Westminster, to do's miss any idea of the erection of some huge block of offices or other commercial building which will neutralise all the benefits which have accrued from clearing away the houses in front of the Chapter House, and the opening up of one of the fine features of that beautiful thirteenth-century building—viz., the Flying Buttresses.

THE PROPOSED CHAPEL.

It is well known that there is not any more room for memorials in the Abbey itself, and it has been agreed by the authorities that there should be no interference with the present monuments. It has long been felt that some provision should be made for the continuance of these memorials, and the opportunity is

taken to suggest that this national want should be met, and that it should take the form of a Memorial Chapel and Valhalla, a "Palace of Immortality inhabited by the Souls of Heroes slain in Battle." In 1890 and 1891 a "Royal Commission on the present want of space for monuments in Westminster Abbey" sat, decided that a Memorial Chapel for future monuments should be provided, and that it should be erected as an adjunct to the Abbey. The then Archbishop of Canterbury said that it should be a building in the sense "that it should be possible to be used for Services like the rest of the Abbey as any of the Chapels might be."

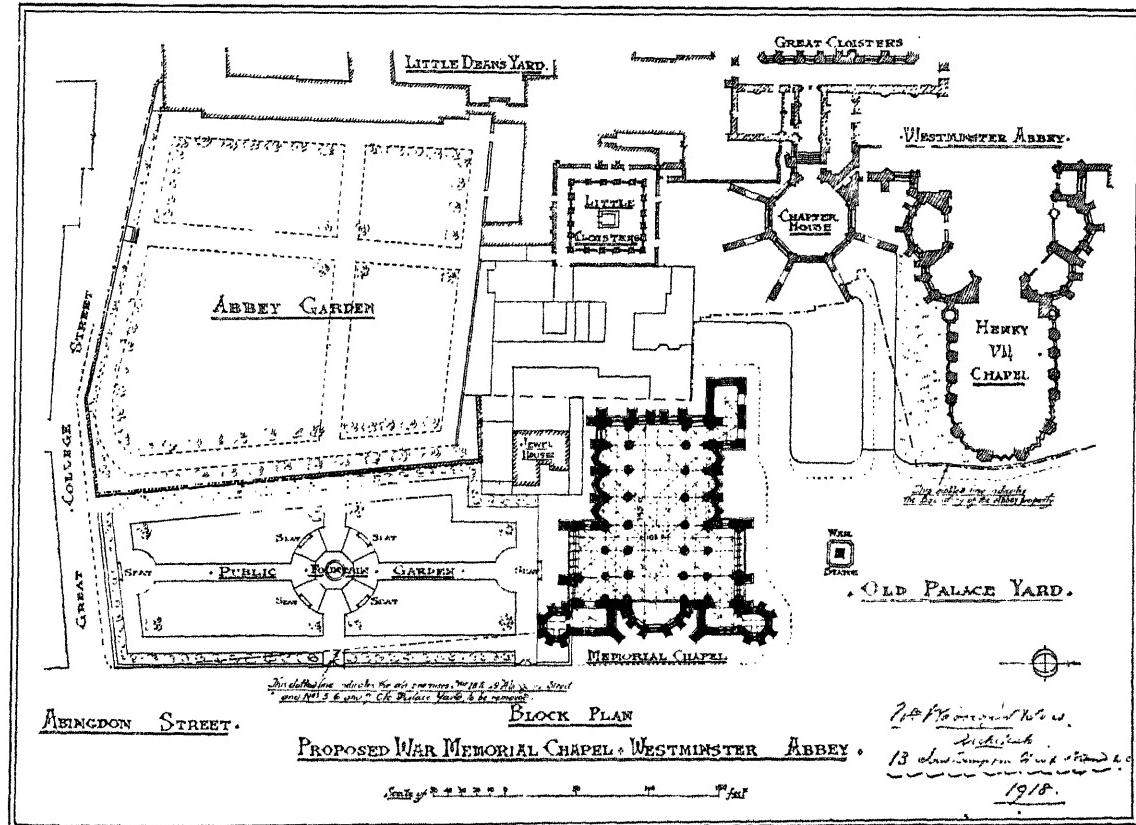
In designing this Memorial Chapel care has been taken not to intrude, in any way, upon the structures of architectural or archaeological interest connected with the Abbey, and the suggested site is entirely outside the boundaries of the Abbey property. The Memorial Chapel would be reached either directly from Abingdon Street, or through the doorway from the Abbey itself in Poets' Corner, and across the lawn in front of the Chapter House. The Chapel would provide for memorials to all the heroes who have fallen in the War—on Sea; on Land; in the Air; not omitting the glorious deeds of the women. Of all the above named, imperishable records should be provided in the form of sculpture, stained glass, mosaic, bronze work, and wood work; and, in addition, the Chapel should provide for solemn Memorial Services, and for quiet prayer and meditation, by the relatives of the fallen. The Chapel would be visited by the many thousands of persons who will pass through the Abbey, as they do now, contemplating those monuments for the continuity of which there is no room in the Abbey itself.

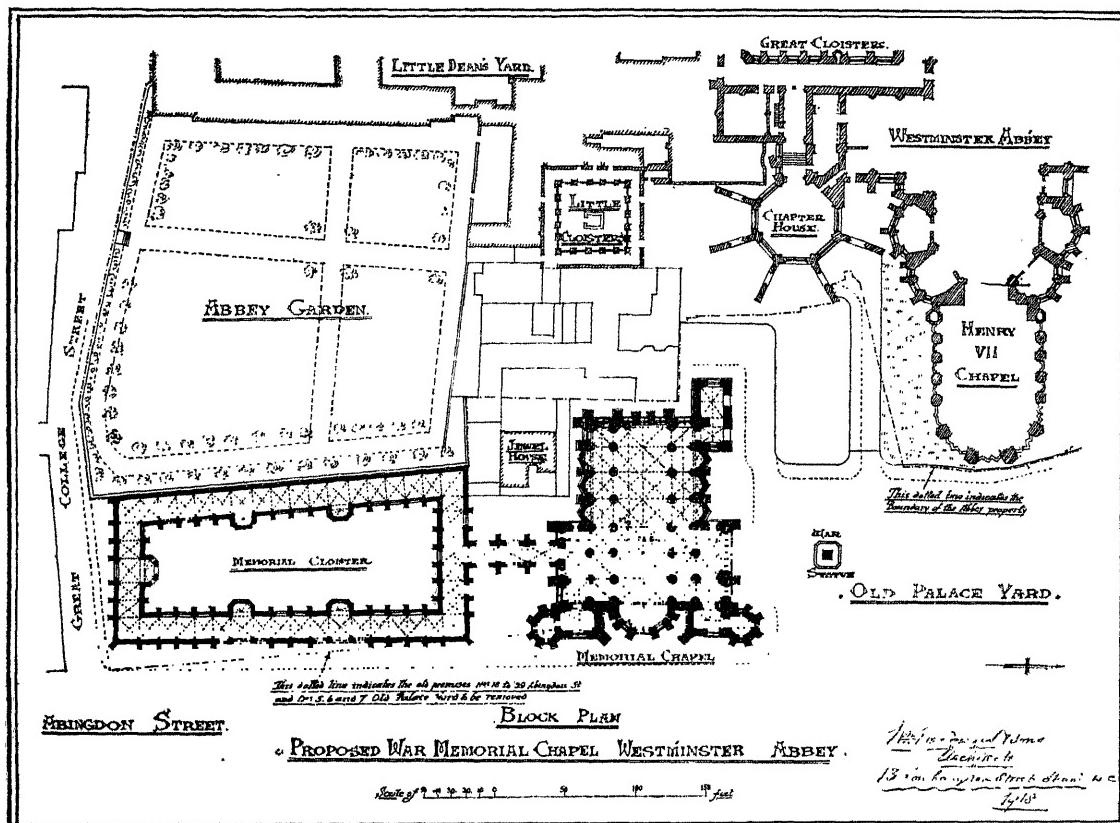
To give some idea of the proposed Chapel it may be stated that the height to the roof is about the same as Henry VII. Chapel; and that its general dimensions may be compared with those of Gloucester Cathedral. Thus the length of the Chapel is 145 feet, Gloucester 174 feet; the width of the nave of the Chapel 37 feet, Gloucester 34 feet; the width of each aisle of the Chapel is 18 feet, Gloucester 15 feet; the total width of the nave and the aisles of the Chapel being 73 feet, Gloucester 64 feet; the height of the nave of the Chapel would be 70 feet, Gloucester 68 feet.

The complete design of the Chapel is shown by the



VIEW OF PROPOSED WAR MEMORIAL CHAPEL, WESTMINSTER ABBEY.





accompanying drawings, and I need only say now that the style of architecture is in harmony with the surroundings, with the Houses of Parliament, and with Henry VII. Chapel, the 13th-century Chapter House forming a fitting centre to the later style of Henry VII. Chapel and the Chapel which we have designed.

THE PUBLIC IMPROVEMENT.

During the last few years considerable sums of money have been expended in the great improvements which have been made at Millbank in the vicinity of the Victoria Tower, the public gardens between Abingdon Street and the river forming a valuable feature of these improvements. The erection of the proposed Chapel would involve, as I have said, the demolition of the houses Nos. 1 to 29 Abingdon Street and 5, 6 and 7 Old Palace Yard, all houses of little or no architectural interest, but which, at the present moment, constitute an ugly blot at this part of Millbank.

The demolition of these old buildings would open up

a view of the trees in the fine old Abbey Garden at the rear of these houses in Abingdon Street, bringing into view the ancient Abbey wall now hidden away. An additional point of interest would be shown by the opening up of the ancient Jewel House. It is suggested that to the south of the Chapel up to Great College Street, where these old houses terminate, a Public Garden should be formed, and this garden would have a length of about 300 feet and a width of about 130 feet.

Since the above described design was completed a suggestion was made in *The Times* of 16th July 1918 that the site I have indicated for a Public Garden should be covered by a Cloister, or Campo Santo. I think the idea is an admirable one, and I have therefore prepared the alternative plan, which I herewith submit, showing the suggested Campo Santo in lieu of the Public Garden, the other features of my design remaining as before.

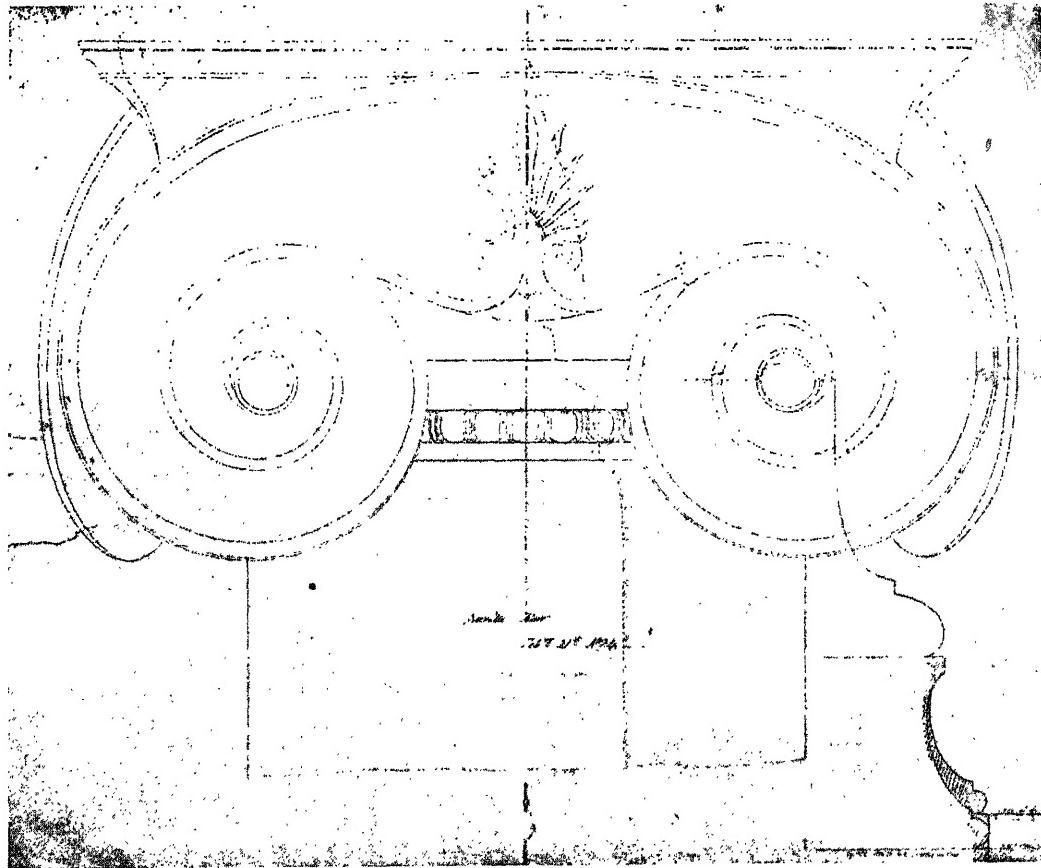
9th August 1918.

DESIGN FOR IONIC CAPITAL BY PROFESSOR COCKERELL.

AMONG the drawings bequeathed to the Institute Collection by the late Mr. Phené Spiers is a full-size detail of an Ionic capital, which is obviously based on the famous capital from the interior of the Temple of Apollo Epicurus at Bassæ.

Cockerell was a young man of twenty-three when,

so novel a character, and of such interest, as to demand a detailed description. It is evident that in constructing the details of this order, those considerations of optics and perspective which are so apparent in every part of this elegant work, were here most especially consulted, because, seen from points of view often abrupt and at an acute angle, in this narrow cella, the form of the order would otherwise have failed. We discover, therefore, the sculptor no less than the architect in the design of these capitals, and proof that they



CAPITAL DESIGNED BY COCKERELL.

in company with Baron Haller, Herr Lynck, and Foster, he left Zante in July, 1811, to traverse Elis and part of Arcadia. He mentions the difficulties attending exploration, particularly the presence of lawless bandits, and refers to the fact that a French architect named Bocher, who visited the site from Caritena in 1770, was murdered by the Lallioties. It was left, however, to Cockerell and his party to investigate this work of the architect Ictinus without molestation.

In his description of the particular feature of the interior and its unique treatment Cockerell states: "The Ionic order of the interior presents features of

had been carefully modelled and adjusted to their places before they were ultimately executed in marble.

"The order exhibits the earliest example known to us of an Ionic cap on each face, as also of an abacus placed on the Ionic cap; the only examples of which have hitherto shown paintings on vases. The front and flank volutes will be found to differ both in width and in profile."

Regarding the capital designed by Professor Cockerell in 1829 at his office in Savile Row (see illustration), it is not known with certainty for what

purpose the design was made. It must be considered as an academic essay probably in connexion with the architect's work at the Bank of England. Cockerell's design for the columns at the University Library, Cambridge, in which the capitals follow the lines of the Bassæ example, was not made till 1836; and those at the Taylor and Randolph Buildings, Oxford, were not designed until 1845. In those days architects vied the one with the other to produce a distinctive and rare form of capital for their buildings. This was the case with Soane and Cockerell. At the Bank of England Soane introduced the novel order from Tivoli, and Cockerell employed the rare example from Bassæ for the buildings named above.

A. E. RICHARDSON [F.]

REVIEWS.

BIRMINGHAM'S CIVIC NEEDS.

The Development of Birmingham: An Essay. With Designs and Drawings by Mr. Haywood, F.R.I.B.A., and an Introduction by Neville Chamberlain, J.P. 40. Birmingham, 1918. 15s. and 6/6 net. [Kynoch, Ltd., Birmingham.]

Among the many lessons that the world might more generously learn from its artists than it does is a vivid realisation of the significance of facts. Nothing is more pathetic in our social ordering than the constant neglect of profound and immediate gain for some chimerical good of which the blessing is in eternal prospect. The business world, intent always on schemes for future profit, becomes strangely insensitive to present results, and in looking for to-morrow's bargain forgets continually that the first condition of vivid life is the wholesome application of the bargain that has been made to-day. And by an aberration of what often seems to be incurable ignorance, this same business world habitually thinks of itself as being sternly practical and of the artist as being a vague visionary concerned with abstractions that are pleasant enough to consider on some seventh day, but which must not be allowed any dangerous encroachment on the claims of reality. This proposition would be allowed cheerfully by nine business men out of ten, and yet it is a wild reversal of the truth. Of all men the artist is, by the very nature of his function, the most practical. While the rest of the world is engaged in tabulating facts he is engaged in realising them, and while other men are timidously hoping that something may be done in fifty years' time—when their posterity will be hoping the same thing—he insists that something can and should be done this morning. His is the single voice proclaiming that life is short, and that for a man to pass from earth having borne no witness for beauty is to betray both himself and his children. He is the only practical man, because he is the man whose purpose is nobly to make the best of this world.

Here, for example, is Mr. Haywood's book. It concerns Birmingham in particular, but the reflections

that it provokes concern any great commercial city in the country. The citizens of Birmingham, even the least sensitive of them, must be aware that their daily environment is a thing that they grow to endure as an unsightly necessity, and they must further be aware that this environment very intimately affects a great part of their few years on earth. And what do they do? Those among them who consciously resent conditions that starve many generous instincts during the hours of their daily occupation, provide for themselves their private corners of retreat where they can satisfy the finer appetites that are not considered in the vast communal business enterprise of their city. They live in a social condition where any quickening of their perception of beauty must correspond with a waning civic pride, since to understand is to be ashamed. And yet what business man among them dare risk his reputation by advocating drastic reforms which would do something to better all this at once? Town planning schemes, admirable enough in themselves, are designed to effect a slow transformation of which the results will begin to be seen when every Birmingham citizen now living is dead. To do more than this, say these practical men, would involve far too serious a risk. Risk of what? Of embarrassing this or that financial interest we must suppose, or of disturbing some established commercial channel. But of what possible importance are these things beside the immeasurably potent environment that is in more or less constant play upon a community of something like a million people? A little wise application would quickly solve all the difficulties without injustice, and with this the undertaking of two or three largely conceived improvements in any great city would set an example that would have an immediate and abiding influence. And it is left for the artist, the really practical man with his eye on the plain facts of man's life, to come forward as Mr. Haywood here does, with a clear assertion of the unheeded commonplace that what is done to-morrow is not done at all. Mr. Haywood, in his attractive volume, deals adequately, and on what all his business friends will allow to be sound financial lines, with the actual town-planning schemes now under consideration, and his advice will doubtless be welcomed by the authorities. But he realises that the best, indeed the only way to inspire such schemes with vitality is to set up some immediate example where beauty and civic convenience are combined. He gives, for instance, detailed plans for the erection of a great People's Hall in Birmingham and the reconstruction of New Street Station. What is there, apart perhaps from momentary war conditions, to prevent the materialising of these at once? That they would add in every way to the dignity of the town there can be no question, nor that they would encourage all the nobler impulses of its citizens. The few individual interests affected could be dealt with equitably without hardship to anyone, and so are negligible. The only explanation that remains for any delay in following such counsel as Mr. Haywood gives is that

the men of commerce in their intentness upon ledger abstractions lose the vigour necessary for realising facts, and in their profitless visionaryism are daily willing to sacrifice life.

JOHN DRINKWATER.

PROTECTION OF ANCIENT BUILDINGS.

The Society for the Protection of Ancient Buildings : 41st Annual Report of the Committee. June 1918.

It does the S.P.A.B. great credit that amid the hampering restrictions of a four-years' war it still keeps its flag flying, and manages to produce its charmingly illustrated annual report—this one being the forty-first—a sobering reminder to those of us who remember the early days when it was launched on its militant career by Morris, Thackeray Turner, and a few other stalwarts, most of whose good swords are rust to-day, alas! Those forty-one years have whitened many a head and bowed many a back, but the S.P.A.B., though perhaps showing a less truculent spirit, still pursues its way, armed cap-à-pie to fight the dragon of Restoration. It is a deathless quest ; the dragon is hydra-headed, and we seem to see much to test the good knight's prowess and the quality of his steel. What matter if the knight be something of a Quixote and occasionally—very occasionally—run a-tilt at a windmill ? It is all in a good cause ; the lance is splintered, the knight perhaps unhorsed, but no harm is done ; if the windmill prove not to be a dragon, it is nevertheless a windmill, and has served to splinter a lance upon.

To be serious, one often reflects on the quaintness of the position in which we who are architects find ourselves in regard to the S.P.A.B. We believe we have assimilated many wholesome truths, or learned to look at old beliefs in a new light ; but unless we are of that sacred inner circle who sway the counsels of the good knight, and have sworn round oaths of fealty upon his shining blade, we still feel a naughty prompting to jest, to quibble, to dispute his *ipse dixit*, to question his simple "It is written."

Joking apart again, may not we who are humble members of the S.P.A.B., and incidentally architects, keep something of the sacred right of private judgment in dealing with ancient buildings that pass through our hands ? Personal experience has convinced this reviewer that no principles, rules or nostrums, however admirable, will serve for all cases, or enable one to dispense with mother wit. To be catholic-hearted, of wide sympathies with all styles and periods ; to jealously work and strive for the preservation of *all* things ancient and beautiful—this surely is the root-principle, the thing that really matters. It need not involve our using little piles of tiles in place of an honest stone, or blue-bricks where sound rubble would serve ; nor need it prohibit the careful piecing with new stone of a partially decayed door or window, or the replacing of a missing mullion, dripstone or abacus. Where it is possible to

date or mark such inserted new work, so that it may unobtrusively tell its own story, by all means let us so deal with it ; but surely to put in patches of tile or brick, where stone should be, is pure pedantry and sheer disfigurement.

One sorrows a little over the priggishness that still clings to our dear S.P.A.B. One fears that many honest and earnest workers are deterred from seeking admission to its ranks because of this : and this tone is a good deal in evidence in the Report, reminding one oddly from time to time of the official utterances of a missionary society.

Nevertheless there is much sound sense—as in the introductory remarks on War Memorials, though even here the suggestions as to the forms such memorials may take seem to be rather limited. But one welcomes the pleading for the old and picturesque cottages which are still left to us despite the tender mercies of landlords and medical officers of health.

The "Cases" where the Society has been called in to advise, or where it has proffered advice to restrain the rash restorer, are always interesting reading, and the illustrations are delightful, especially those of the picturesque church interior at Clodock, Hereford ; Cerne Abbas gateway, Dorset ; Old Palace Yard, Coventry ; and the two of Whitby Abbey which record the vandalism, not of the native restorer, but of the brutal Hun. One picture is a record of the lovely west doorway destroyed in the bombardment of 1914.

PHILIP M. JOHNSTON, F.S.A. [F.]

THE BERNERS ESTATE.

A Short History of the Berners Estate, St. Marylebone. By John Slater, B.A., F.R.I.B.A., Surveyor to the Estate. So. Lond. 1918. [Unwin Bros., Ltd.]

Members of the Institute who are interested in the topography of Old London will be glad to know that a very excellent book has recently been written on the Berners Estate, of which formerly but little information could be found in any book. The estate in question is in the south-east corner of the borough of St. Marylebone, and it is a remarkable fact that, whereas less was formerly known of this corner of the borough than of any other part, now the records of it are very ample. It is generally admitted that the best topographical work originates from those who have to do with important estates, and it is certainly so in the present case. The author is Mr. John Slater, who has managed so ably and developed so successfully the Berners estate for nearly thirty years. The book, although small, contains a vast amount of valuable and important information, almost the whole of which is the result of the author's original research into the actual deeds of the estate, one of which is given verbatim. There are also two plans, one showing the estate as it was in the year 1654, consisting of a few fields and a country lane, and the other as it exists at the present time. It is interesting to learn that records exist of all the numerous owners of this estate, from the time when it formed part of lands attached

to the Lepers' Hospital of St. Giles's-in-the-Fields in the reign of Edward I., to the present time. For a short period it was in the possession of Henry VIII., who owned all the most important portion of the borough at various times, and he gave it to Lord Lisle in the year 1545. After changing hands several times in the course of the next hundred years the estate was purchased in 1654 by Josias Berners, the ancestor of the present holder, and it has remained in the possession of the family ever since. The estate remained a country farm till the middle of the eighteenth century, by the end of which it had been developed on its present lines.

ARTHUR ASHBRIDGE [F.]

CORRESPONDENCE.

Cambridge University Building Classes.

Cambridge : 25 July, 1918.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—May I bring to the notice of the JOURNAL the programme of the building classes which Cambridge University has established for disabled officers? Those now at work with us have already, many of them, qualifications as students or members of the Institute, or as practical craftsmen and designers, others have been in the building and cement trades, or have practised as land agents and surveyors. They form a constituency of students able to take a wide review of the building arts. The Cambridge Board of Architectural Studies is undertaking, also, a series of experiments in limes and cements at the instance of the Department of Scientific and Industrial Research, and has set up a special committee formed from the University staffs of engineering, forestry, geology, and chemistry. The results will in due course be available for the architectural profession. There are contemplated further researches in aggregates, and the best forms of reinforced concrete. The co-relation of the laboratory with the practical experiments of building is intended for the general benefit of the building trades. The Cambridge School of Architecture, starting afresh this October with classes and lectures, comprises both sides of building learning : (1) The scientific and constructional, and (2) the historic and artistic. The attention of architects should be directed to this attempt to further the study of constructional science along with the historical and archaeological education that a University provides. The new departure in experimental work for the building trades offers an inducement to students that should be of special value to-day.

Yours very truly,

EDWARD S. PRIOR [F.]

The Statutory Examinations.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—In these days when so many architects have next to nothing to do it puzzles me that more do not go in for District Surveyorships in London. The average number passing the qualifying examination of late years has been two. Thirty years ago I have known a dozen pass in one year.—Yours faithfully,

"OLD SURVEYOR."

[Charing Cross Bridge Scheme.]

To the Editor, JOURNAL R.I.B.A.,—

SIR,—In the JOURNAL for July you publish on pages 209 and 210 an extract from a weekly newspaper that is somewhat difficult to understand. It advocates the abolition of Charing Cross Railway station and the erection of a station on the south side of the river, which many of us desire ; but in support of that scheme it states : "The road from London to Paris and the Continent must begin in a noble manner at Charing Cross." If the scheme were carried out that is exactly what would *not* be done, the "road," from London to the Continent would start at Waterloo, and the proposed Charing Cross bridge would in that respect be no different from any other London bridge, for they all lead from the north to the south side of the river.

Yours obediently,
"STUDENT."

The late F. R. FARROW [F.]

Mr. ERNEST GALL sends the following supplementary note to Mr. Percy Marks' memoir of Mr. Farrow published in the last issue :

F. R. Farrow was always a great supporter and valued member of the Architectural Association. He was Hon. Secretary for the four years 1887-1891, for the first two years as Junior Hon. Secretary with the late F. E. Pryce, and for the last two years as Senior Hon. Secretary with myself as his colleague. The A.A. at this time was in a state of evolution, and Farrow and his colleagues were engaged in laboriously preparing the scheme which has placed the A.A. in its present important educational position. Farrow's experience in architectural education, his sound judgment and imperturbable good temper were invaluable to the A.A. work, and all who worked with him became his lifelong friends. He was one of the best Hon. Secretaries the A.A. ever had and his work as such was of lasting value. He later occupied the position of Vice-President for 1891-2.



9 CONDUIT STREET, LONDON, W., 17th Aug. 1918.

CHRONICLE.

The R.I.B.A. Record of Honour: Fifty-fourth List.

Fallen in the War.

CAPELL, Second Lieut. BRUCE LORENCE, M.C., R.G.A. (younger son of Mr. Bruce John Capell [A.]). Killed in action.

WHITELEY, Lieut. CHARLES TAYLOR, Royal Warwickshire Regiment, Associate. Died on 1st July of wounds received on the 29th June.

LAWTON, Lieut. WILLIAM VICTOR, R.E., Student. Fatally injured in a riding accident in France.

Lieut. Lawton joined the Colours in September 1914, was attached to the Yorkshire Dragoons, and served in France from July 1915 until his death on the 8th July last. He was granted a commission in the Royal Engineers in 1916. Whilst riding in the R.E. Divisional Show on 1st July his horse refused a fence, reared, and fell upon him, causing fatal injuries. He was twenty-six years of age, and the son of the late Charles Lawton, F.S.I., land agent, of York, was educated at St. Peter's School, York, and served his articles with Messrs. Perkin & Bulmer, architects, Leeds. He was also some time in the office of Mr. Walter Cave. His nomination papers for the Associateship of the Institute were only completed a few days before his death. He was a fearless rider, and took great interest in all sports, especially football and cricket.

WATT, JOHN DOUGLAS DICKSON, Associate. Missing since 1st July 1916, now assumed by the War Office to have been killed on that date (the first day of the Somme offensive).

Lieut. P. Minor, whose death in action was recorded in the last issue, was the son of Mr. Walter Richard Minor, solicitor, of Manchester, and was educated at Wellington. He served his articles with Messrs. Sankey and Cubbon, Manchester, and subsequently became partner in the firm of Taylor and Minor, of Darlington. He was elected Associate of the Institute in 1907. In 1915 he was granted a commission in the Durham Light Infantry, and for some time served on the Quartering Committee of the Northern Command. In January 1917 he crossed to France and had been serving there from that time till his death on 27th May. Only the week before he fell he had been noted for Mention in the next Honours Dispatch. He has left a widow and two children.

Military Honours.

TAYLOR, Captain JOHN ALEXANDER CHISHOLM, Manchester Regiment [Student]. Awarded the D.S.O.

"He was in command of the company on the right flank to which he added some 300 men collected from other divisions. By a prompt counter-attack he defeated the enemy's attempt to envelop the right flank. His coolness, promptitude and personal gallantry were a great incentive to his men."—*London Gazette*.

Captain Taylor, who was studying in London when war broke out, joined the Manchester Regiment and was sent to Egypt in 1914. He was in the Gallipoli campaign in 1915, went through the Sinai Peninsula with the Desert Column in 1916, and went to France early in 1917.

Major Atkin-Berry.—In chronicling recently the award of the D.S.O. to Major H. C. Atkin-Berry, Tanks Corps Staff, mention was omitted of the Military Cross which had been previously conferred upon him. Major Atkin-Berry is a Professional Associate of the Surveyors' Institution, and a partner in the firm of Messrs. Swan & Maclaren, architects and engineers of Singapore, Federated Malay States. He came home soon after the outbreak of war, having obtained a commission in Singapore, and has been serving in France continuously since October, 1915. Before going to the East he was a member of the Artists' Rifles, and subsequently of the Malay States Volunteer Rifles.

Promotion.

Lieut. (Acting Captain) L. S. Sullivan [A.], 93rd Labour Company, has been gazetted Captain.

The Future of Architecture and the Architectural Profession.

On the motion of the Hon. Secretary of the Institute the Council recently appointed a Committee "to consider the whole relation of Architecture to architects, to the Institute and kindred Societies, to the public and to each other, with power to take evidence, and to frame a report on the evidence and opinions collected, together with a complete scheme of reconstruction for consideration."

The Committee consists of the President, the Hon. Secretary, Sir Aston Webb, R.A., Mr. Reginald Blomfield, R.A., Mr. Walter Cave, Mr. H. M. Fletcher (President of the Architectural Association), Mr. W. Alex. Harvey (President of the Birmingham Association), Mr. H. V. Lanchester, Professor W. R. Lethaby, Mr. S. Perkins Pick (President of the Leicester Society), Mr. John W. Simpson, Mr. Paul Waterhouse, Mr. H. H. Wigglesworth, and Mr. Herbert Shepherd. The President is Chairman of the Committee, and Mr. Wigglesworth Hon. Secretary.

Among questions put to those giving evidence are the following:—

What is the cause of the unsatisfactory state of the profession, and what remedial measures are necessary?

What are the minimum essential requirements for ordinary general practice, and how should architectural education be modified to secure these?

What are your views as to the reorganisation of the R.I.B.A., and what direction should this take?

Should an attempt be made to unify the profession, and, if so, in what manner and to what extent?

How may the unqualified practitioner be prevented from bringing the profession into disrepute?

How far should technical special knowledge be acquired by architects, and how should education be improved to secure this?

How far should architects be encouraged to specialise?

What relationship is desirable between architects and technical experts?

Is the inclination of the public to go direct to builders, and the disinclination to employ architects, a real menace to the profession?

Should architects undertake building operations directly?

What are your views on the relations of the profession to State, municipal, and public departments generally?

"Professional Ferment."

Some of the problems that face the architectural profession in this country at the present moment appear also to be vexing the profession in America, judging from an article headed "Professional Ferment" recently contributed to the American journal *Architecture and Building* by Mr. Wm. Phillips Comstock. The following is an extract:—

There are, even in this day and hour, architects who have business of considerable volume on their boards and many of our contractors can hardly be said to be starving for lack of work. Yet the architects as a body, and with them many in the construction industries, view the present situation with concern, and well they may.

Building construction methods are in a period of mutation; new species bid fair to be created, and the old order is on the wane. Not that this condition is a sudden development—as some may think—for the odour of it has been in the air for many moons. Building conditions, like a huge structure founded in a quagmire, have courted disaster until with a precipitation of an earthquake, they are now suddenly engulfed, and the architectural profession, with many of its satellites, finds itself floundering—and wondering why.

The world war is the immediate cause of this cataclysm, and, as usual, the immediate cause receives the blame though the structure has long been showing dangerous settlement cracks caused by the improper foundations laid down in the past. Good foundations are a necessity in all good building, and the architect knows this better than anyone else, yet in his very life-work has he neglected the preachers he has made to others.

With lofty thoughts and stilted ethics he has strode along without an appreciation of the progress about him, ever changing, searching, specialising. Business—life—is a continuous revolution. New precepts rule to supersede by even other newer precepts. The professional practice of architecture has not kept pace and is therefore doomed. It must be reborn from the ashes of the past, even as the legendary phoenix.

Art—architecture is the culmination of all arts—is undying. Architecture is inherent in the human race; the desire for it cannot be destroyed, and it will rise with a spirit of victory above all sordidness. This idealism is immortal. It is the soul of the phoenix, which shall inspire the new body of a rejuvenated professional practice.

All have not been blind. Some—many even—have seen the light and remodelled their course to meet the modern trend. These are the successful architects and busy builders of to-day who have met the demands of current development and from them won a deserved return. Chance or accident has not been an element in their progress, which has been based on the sound business principle of true service for value received.

The famed architects of antiquity were master-builders. They designed freely and wrought wonderfully with the clay in their hands. They lived in the heyday of the artisan and craftsman; they were the leaders who rose above their fellows by the sheer might of their gifted prowess. Times have changed.

This is the age of standardisation, machine-made quantity production, rule by the multitude not by the few, and

yet our art lives on and reaches ever higher levels of attainment. Let our architects read the signs of the times and rise to new pinnacles based on our modern productiveness.

When our country went to war there was a sudden and enormous demand for construction on a vast scale; the Quartermaster's Corps of the Army had to provide housing for the new armies; extensive additions were necessary to existing manufacturing plants, and even greater new factories were built overnight as it were; office and executive buildings of great extent were demanded to house the ever-extending executive departments of the Government; housing for operatives became a crying need in our great industrial centres; construction on a vast scale was necessary to meet the needs of our colossal new war machine, to build our ships, and supply the materials of war.

To make possible this accomplishment, in all its ramifications vast to the extent of being almost incomprehensible, the organisation of our Government Departments was extended manifold; the personnel increased with a rapidity which was marvellous, and an organisation of professional talent created which to-day, after a year of war, is perfected and efficient in a remarkable degree. What is the status of this organisation? How is it made up? And how was it possible for the Government in its hour of need to immediately get assistance?

It was the trained engineers of the country who became the technical advisers of the Government in design, and construction, utilising the utmost expansion of them and It was our trained engineers, already well organised in our great building construction firms into harmonious working units, companies, even regiments, who were ready in the hour of need to do the deed.

Professionally, as such, our architects have not been a factor in the greatest building emergency the country ever saw. Individually, to many the greatest praise is due. They have donned the uniform, striven at home and fought abroad, and given of their best in ability, effort, and resourcefulness. But as a profession, in the oft-vaunted position of autocrats of the building industry, they have been wanting. And the reason is not beyond discernment; it is an inheritance from the past; architectural practice has not kept pace with the times.

The need of federation in the building industry as a wartime need has been met. Why not face the truth squarely and hold a conference to reorganise the outworn system of professional practice?

The after-war period in the building industry will be a time of great enterprise and expansion. In this the architect should play a prominent part, but his days of autocracy are over, and his success will depend on his ability to co-operate, not to dictate. Now, when the architect secures a job, he calls on the foundation builder to figure his footings, he depends on the steel contractor to design the structural members, he depends on the plumbing contractor to draw the lay-out, he expects the electrical go on?—and when the building is finished he zealously, often belligerently, demands exclusive credit for its entire design and construction.

The day for this is past—and why? The architect has been losing business. Others who build better, more efficiently, and more economically under the name of architectural or engineering contracting firms have taken the work from him, and they work on the principle of co-operation, not autocracy.

Let us hope that the conference called by the American Institute of Architects, to be held at the Engineering Society's Building, New York City, on 14th June, 1918, will be largely attended, but that there may be those present, with chastened spirits if you will, who will have the foresight and the courage to tell the truth and lead the great and ennobling practice of architecture on to better things.

Housing of the Working Classes.

A Joint Conference of Representatives of the South Wales Institute of Architects and the South Wales Building Trades Employers' Federation was held at Cardiff recently for the purpose of considering the question of providing additional houses for the working classes, so soon as circumstances will permit. The immediate need of such houses and the responsibility of the authorities to take the necessary steps to provide them were fully realised. It was recognised that until recent years the enterprise of the builder was responsible for the provision of nearly the whole of the small houses erected, and that the present shortage throughout the country is entirely due to circumstances outside his control, which have made the building of these houses unremunerative.

The Conference fully appreciated the efforts being made by the Government ~~to~~ to deal with the important and difficult problem of providing further housing accommodation, and the societies represented pledged themselves to offer their whole-hearted support and assistance to any equitable scheme in this direction. At the same time it was decided, that in the interests of the community, the attention of every borough, urban and rural district council in South Wales and Monmouthshire should be drawn to the danger of surrendering their powers as administrative bodies to syndicates, trusts, and limited companies, who are now so actively engaged in endeavouring to induce the various authorities to entrust them with the preparation and carrying out of important housing schemes. The Conference further decided to point out that it has been the general custom in the past for Building Syndicates to resort to sub-contracting and piecework, which practices are conducive to bad workmanship and unrest among the workmen, and for these reasons are condemned by architects builders and the trades unions.

The Conference in conclusion wished to impress upon the various authorities the importance of giving careful and due consideration to the advantages of obtaining the services of the best qualified architects and builders before entrusting their building schemes to trading organisations whose officials seek to act not only as architects but as builders under their own supervision, and who endeavour to shelter their selfish aims under the mantle of the Garden City ideal.

OBITUARY.**The late Horace Porter [F.]**

Horace Porter, who died on the 29th July at the age of fifty-seven, was elected an Associate of the Institute in 1891 and a Fellow in 1915. He had served on Committees of the Institute, and had contributed to the Institute TRANSACTIONS a Paper of great technical importance on the subject of Fire Prevention and Fire Resistance [JOURNAL, 3rd ser., Vol. X, page 285] and an exceedingly interesting Paper recording the results of his holiday studies of the Walls of Visby in the island of Gotland [ib., Vol. XX, p. 97]. When some years ago the Finance Committee were engaged in the revaluation of the whole of the property and effects of the Institute, Mr. Porter rendered the Committee invaluable assistance, his ripe knowledge and experience in this branch of a surveyor's work being freely placed at their disposal.

Educated at Uppingham and Trinity College, Cambridge, he studied architecture under his father, the late F. W. Porter [F.], and was afterwards associated with him in partnership. For fifty years he and his father occupied

in succession the post of architect and surveyor to the Sun Fire Office, and for about the same period that of surveyor to the Clothworkers' Company. Father and son also passed the Chair of the Saddlers' Company, F. W. Porter being Master in 1895-96 and Horace Porter Prime Warden in 1916-17. The latter was one of the original members of the Holborn Borough Council and was Mayor in 1910-11.

Horace Porter started practice in 1890, and jointly with his father was architect of the Pont Street and Croydon branches of the Union Bank of London and alterations and additions to the Sun Insurance Office buildings in Threadneedle Street. He was solely responsible for the alterations and additions to the Sun Office Buildings at Charing Cross and Spring Gardens and for the branch office in College Street, Dublin; also for Dr. Hackney's house at Hythe, Mr. Sweet's at Chipstead, Mr. Welldon's at Ashford, Mr. Tomson's at Yeldham, and Captain Bidder's near Mitcham. The latter, which was illustrated in *Country Life*, is a particularly charming design in the late Georgian manner, the western front facing a formal garden tastefully laid out under Mr. Porter's direction.

Mr. Porter married in 1901 Mary, the youngest daughter of the late G. P. Bidder, Q.C., of Mitcham. The funeral service, held at St. Giles's Church, was attended by Mr. Max Clarke [F.], representing the Holborn Borough Council; Sir Henry Tanner, C.B., I.S.O. [F.]; Mr. Arthur Keen [F.], and Mr. Wm. Woodward [F.], representing the Institute.

THE EXAMINATIONS.**The Intermediate Examination.**

The Intermediate Examination, qualifying for registration as Student R.I.B.A., was held in London from the 7th to the 11th June. Two candidates only presented themselves and both passed—viz.:—

BLAKEMAN: William Henry [P. 1916]; High Legh, Old Hall Lane, Leigh, Lancs.

JACKSON: Reginald [P. 1912]; c/o Mr. Lee, 119 Hyde Park Road, Leeds.

Exemptions from the Intermediate.

The following Probationers, having produced satisfactory evidence of their training and qualifications, were exempted from sitting for the Intermediate Examination and have been registered as Students:—

BATTISCOMBE: Humphry [P. 1904]; Beverley, Orpington, Kent (Architectural Association).

DE SOUZA: Walter Edward [P. 1918]; 20 Woodville Road, Golder's Green, N.W. (Architectural Association).

FORTESCUE: George Alan [P. 1906]; "Sunray," Sunray Avenue, Herne Hill, S.E. (Architectural Association).

KNIGHT: Frederick Adams [P. 1917]; 5 Ashchurch Park Villas, Shepherd's Bush (Architectural Association).

MACGREGOR: John Eric Miers [P. 1908]; Stamford Brook House, W. (Architectural Association).

PASTAKIA: Shiwax Cowasjee [P. 1917]; Dhuns Buildings, Thakordwa Road, Bombay [Sir J. J. School of Art].

UDWADIA: Phirozshah Rattonji [P. 1917]; 3 Trebovir Road, Earl's Court, S.W. (Architectural Association).

WENNING: Victor Jacques [P. 1918]; 33 Buckley Road, Brondesbury, N.W. (Architectural Association).

The following Probationers serving with the Forces, who are eligible for the Intermediate Examination and whose Testimonies of Study have been approved, have also been exempted:—

Aug. 1918

- CARELESS : Sefton Stockford [P. 1917]; Kilmorey, Leckhampton Road, Cheltenham.

CAVE : Robert Sims [P. 1910]; 8 New Road, Oxford.

ENGLEFIELD : Ulmer Ian Hely [P. 1917]; Parkstone, Upton Lane, Gloucester.

GRIFFITHS : Frederick Rowland [P. 1916]; 58 Old Church Road, Whitchurch, Cardiff.

HAYNES : Frederick Stanley [P. 1910]; Beverley Villa, Harvey Road, Leytonstone.

HOPKINS : Wilfrid Walter [P. 1913]; 52 Teviot Street, South Bramley.

HUTTON : Arthur James Scott, 21 Derby Crescent, Kelvin-side, Glasgow.

MILLEN : David [P. 1918]; Newington House, Sittingbourne, Kent.

PARAMOR : Frank William [P. 1917]; 76 Warren Road, Leyton, E.10.

PRESTWICH : Ernest [P. 1918]; Bradshawgate Chambers, Leigh, Lancs.

SIEBERT : Charles Frederick [P. 1918]; 83 Anson Road, Criklewood, N.W.2.

STEPHENS : Philonorus Edwin [P. 1911]; 46 Chapel Street, Penzance.

STEVENSON : Raymond Croisdale [P. 1908]; 3 Grove Mansions, Stamford Hill, N.16.

STRIBLING : Herbert James [P. 1915]; 50 High Street, Slough, Bucks.

SUTCLIFFE : Edgar [P. 1915]; 88 Industrial Street, Todenham, Yorks.

TANNER : Edgar Allan Davey [P. 1911]; 18 Hestercombe Avenue, Munster Road, Fulham, S.W.

DICKSEE : Lieutenant Harold John Hugh, Royal Flying Corps.

DUCKWORTH : 2nd Lieutenant Alfred, Royal Engineers.

EDWARDS : Arthur Trystan, Royal Navy.

EVANS : 2nd Lieutenant Thomas Cwmannne, Royal Garrison Artillery.

FARBY : Captain Cyril Arthur, Army Service Corps.

FILKINS : Sergeant Edwin William, Royal Army Medical Corps.

FINCHAM : Captain Edward, M.C., Royal Engineers.

GARRETT : Captain Sidney Colston, Royal Fusiliers.

GASK : Lieutenant John Harold, Royal Garrison Artillery.

GRAY : Andrew, Royal Air Force.

HAYS : Lieutenant John Wilson, Royal Engineers.

HEALEY : Pioneer Francis Hurst, Royal Engineers.

HENDRY : 2nd Lieutenant Morrison, Gordon Highlanders. (Relinquished commission owing to wounds.)

HARRISON : Captain Harry St. John, Yorkshire Regiment.

HOLDEN : Private William, Royal Army Medical Corps.

HORSBURGH : Captain Arthur Lindsay, London Regiment.

HOWCROFT : Lieutenant Gilbert Burdett, Duke of Wellington's W.R. Regiment.

HUDSON : Lieutenant Philip Sidney, Royal Engineers.

HUTTON : Captain Arthur James Scott. Royal Engineers.

JAMES : Lieutenant Charles Holloway, 1st Battalion, Gloucestershire Regiment.

KEY : Lieutenant William Donald, Royal Field Artillery.

KNIGHT : Shirley, Royal Engineers. (Discharged through wounds received in action.)

LAFONTAINE : Major Philip Cart de, London Regiment.

LAVENDER : Captain Ernest Clifford, Sherwood Foresters.

The Final and Special Examinations.

The Final and Special Examinations were held in London from the 27th June to the 1st July. Of the 13 candidates admitted, 6 passed, and the remaining 7 were relegated. The successful candidates are as follows:—

- GRANT : James Lindsay [*Special*] ; Church Villa, Northenden, Manchester.

MCLACHLAN : Charles [*Student*, 1910] ; 23 Clarendon Road, Lewisham, S.E.13.

MADDOX : Frank Morrell [*Special*] ; 8 Havelock Place, Shelton, Stoke-on-Trent.

ROBERTS : Evan Wendell [*Student*, 1914] ; Railway Inn, Penclawdd, Swansea.

TUBBS : Grahame Burnell [*Student*, 1915] ; 2 Moore Street, Cadogan Square, S.W.3.

VERNON : George, 22 Conduit Street, W.1.

Special War Exemptions.

The following Students serving with the Forces have availed themselves of the "Special War Exemption" from the Final Examination (particulars of which are given in the JOURNAL for March) and have applied to be admitted as candidates for Associateship:—

- ADAMS : Captain William Naseby, Royal Flying Corps.
BAGENAL : Sergeant Hope, Royal Army Service Corps.
BARROWCLIFFE : Lieutenant Arnold Montague, M.C., Royal Engineers.
BLYTH : Sapper Charles Kydd, Royal Engineers.
BOWER : Lieutenant Albert Egerton Lawer, Royal Naval Volunteer Reserve.
BRADSHAW : Captain Harold Charlton, Royal Engineers.
BROAD : Lieutenant Malcolm Charles, Machine Gun Corps.
CHAIKIN : Captain Benjamin, Royal Army Medical Corps.
CLARE : Captain Alfred Douglas, Royal Berkshire Regiment.
COLE : Edward Robinson Ferdinando, Royal Flying Corps.
CORKILL : 2nd Lieutenant Laurence Lavery, Royal Field Artillery.
DANIEL : Thomas Llewellyn, Royal Garrison Artillery.
DAETNALL : Lieutenant James Ambrose, Royal Engineers.

DICKSEE : Lieutenant Harold John Hugh, Royal Flying Corps.
 DUCKWORTH : 2nd Lieutenant Alfred, Royal Engineers.
 EDWARDS : Arthur Trystan, Royal Navy.
 EVANS : 2nd Lieutenant Thomas Cwmanne, Royal Garrison Artillery.
 FAREY : Captain Cyril Arthur, Army Service Corps.
 FILKINS : Sergeant Edwin William, Royal Army Medical Corps.
 FINCHAM : Captain Edward, M.C., Royal Engineers.
 GARRETT : Captain Sidney Colston, Royal Fusiliers.
 GASK : Lieutenant John Harold, Royal Garrison Artillery.
 GRAY : Andrew, Royal Air Force.
 HAYS : Lieutenant John Wilson, Royal Engineers.
 HEALEY : Pioneer Francis Hurst, Royal Engineers.
 HENDRY : 2nd Lieutenant Morrison, Gordon Highlanders.
 (Relinquished commission owing to wounds.)
 HARRISON : Captain Harry St. John, Yorkshire Regiment.
 HOLDEN : Private William, Royal Army Medical Corps.
 HORSBURGH : Captain Arthur Lindsay, London Regiment.
 HOWCROFT : Lieutenant Gilbert Burdett, Duke of Wellington's W.R. Regiment.
 HUDSON : Lieutenant Philip Sidney, Royal Engineers.
 HUTTON : Captain Arthur James Scott, Royal Engineers.
 JAMES : Lieutenant Charles Holloway, Royal Warwickshire Regiment.
 KEY : Lieutenant William Donald, Royal Field Artillery.
 KNIGHT : Shirley, Royal Engineers. (Discharged through wounds received in action.)
 LAFONTAINE : Major Philip Cart de, London Regiment.
 LAVENDER : Captain Ernest Clifford, Sherwood Foresters.
 LIDBETTER : Hubert, Voluntary Driver, attached to French Army.
 LISTER : Harold Alfred, Royal Army Medical Corps.
 LONE : Reginald Wilcox, Royal Army Medical Corps.
 MACGREGOR : Lieut. John Eric Miers, Royal Sussex Regt.
 McLEAN : Captain George, Royal Engineers.
 MULLINS : Lieutenant , Royal Engineers.
 NAPIER : Lieutenant J. , Royal Engineers.
 PARNACOTT : Horace W. , Royal Engineers.
 PHILP : Arthur Thomas, Royal Engineers.
 PLATTS : 2nd Lieutenant Percy Oates, Royal Engineers.
 PRESTWICH : Lance-Corporal Ernest, Royal Engineers.
 RATCLIFF : Fred, York and Lancaster Regiment.
 ROWNTREE : Lieut. Colin, Graves Registration Unit.
 SAMUELS : Lieut. Edward Percy Proctor, Royal Engineers.
 SAXON : Lieutenant Frederick Charles, Royal Engineers.
 SHOOSMITH : Lieutenant Arthur Gordon, Interpreter on Staff of Prisoners of War Camp.
 SOISSONS : Captain Louis Jean Emanuel Guy de S. C. de, Claims Commissions, Italy.
 TAYLOR : Lieutenant Rowland Victor, Royal Engineers.
 THOMSON : Lieut. John Stewart, Royal Field Artillery.
 TOMLINSON : Lieut. Lawrence Digby, Royal Engineers.
 TUNNARD : Capt. Henry Bartholomew, Royal Sussex Regt.
 WALLACE : Robert Stuart, Staff Officer in the Fortifications and Works Directorate.
 WHITEHEAD : Percy, West Riding Regiment.

Special War Examination.

The following have passed the Special War Examination arranged for candidates who have served with the Forces during the War: see regulations, JOURNAL for March 1918:

- DAVIS : Lieut. Sydney William, R.E.
STEVENSON : Private Raymond Croisdale, Non-combatant
Corps.

Licentiates and the Fellowship.

Particulars of the Examination of Licentiates wishing to qualify for Fellowship may be obtained from the Secretary.

FOR SALE by Officer's Widow, architect's chest in well-seasoned wood, fitted with drawers. Length 5 feet 2 inches, breadth 3 feet 2 inches, height 1 foot 10 inches. Also two architect's stools, leather seats. £10 accepted.—Apply "Box 155," 9 Conduit Street, W.

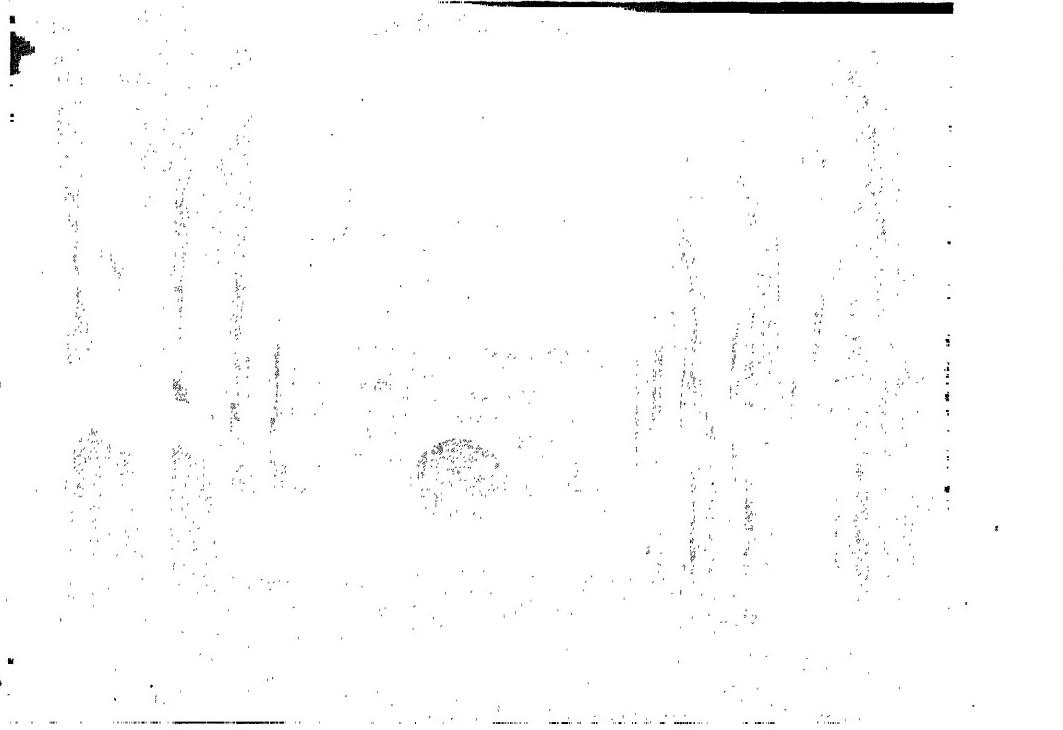


Fig. 1. THE HINDOLA MAHAL.

THE VAULTING SYSTEM OF THE HINDOLA MAHAL AT MĀNDŪ.

By K. A. C. CRESWELL, M.R.A.S.

LOOKING through the Annual Report of the Archaeological Survey of India for 1903, I was much struck with the interior of the Hindola Mahal at Māndū, which I think must possess one of the most remarkable vaulting systems in India. This building is T-shaped in plan, and consists of a great Durbar Hall (Fig. 1), 88½ feet long by 24½ feet broad and 38½ feet high, forming the stem, and a cross-piece in two stories. The ground floor of the latter is taken up by passages, store-rooms, a stairway, and a broad ramp leading to the upper floor, where there is another fine hall, a glimpse of which is seen through the window over the door at the end of the Durbar Hall.

As may be seen, the vaulting system of the great Durbar Hall consists of a series of transverse arches evenly spaced : the backs of these arches are filled up level, but the roofing between them had disappeared as long ago as 1842.* These transverse arches may have been connected either by a series of barrel-vaults running at right angles to the axis of the hall, or by means of beams of wood or stone. Mr. Cousens† suggests "that the roof was supported on wooden beams, which have been carried off, as has happened in so many buildings at Bijāpūr and other places." In view of the tremendous abutment provided (Fig. 2) it is difficult to believe that it can have been roofed with anything lighter than stone. I venture to suggest that it was roofed by a series of barrel-vaults resting on the transverse arches, and my reason for doing so will become clear in the course of this article.

The great feature of this vaulting system which immediately strikes one is that, owing to the roof being carried on fixed points spaced well apart, the wall between them becomes merely a curtain wall, which may be pierced at will and lateral lighting obtained, as in Gothic vaulting. With a simple

* *A Description of the Ruined City of Mandoo.* By a Sub-altern. Bombay, 1854. (Preface dated June, 1842.) See pp. 16, 17.

† *Archaeological Survey, Annual Report, 1903, p. 32 n.*

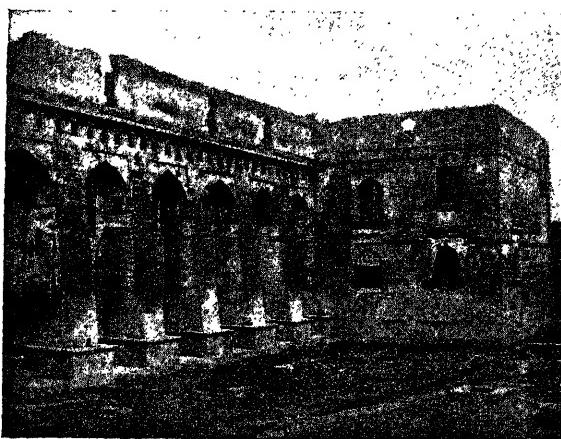


Fig. 2. THE HINDOLA MAHAL: VIEW FROM S.E.

been true Arabs who made use of Aramaic for literary purposes—all their inscriptions are in Aramaic—because Arabic had not at that time developed into a literary language. Our knowledge of them may be said to date from the Hellenic period, when we hear of Antigonus sending his general Atheneus against them in 312 B.C., previous to which we know practically nothing about them. At this time they were nomads, without agriculture; nevertheless, they were great traders. The first ruler (*τυράννος*) of whom we hear is Aretas, with whom Jason, the High Priest, sought refuge in 169 B.C.* The Nabataeans got their chance on the fall of the empire of the Ptolemies and the Seleucids, and their kingdom may be said to date from Erotemus, about 110-100 B.C. In 84 B.C. the Nabataean king Aretas III. took Damascus from Antiochus XII.; it was recovered by Herod, 23 B.C., but it again changed hands nineteen years later, being taken by Aretas IV. in 4 B.C. In A.D. 106 the Nabataean kingdom, which now comprised Bostra (Haurān) and Petra, was converted into a Roman province (Provincia Arabia) by Cornelius Palma, the Roman governor of Syria.†

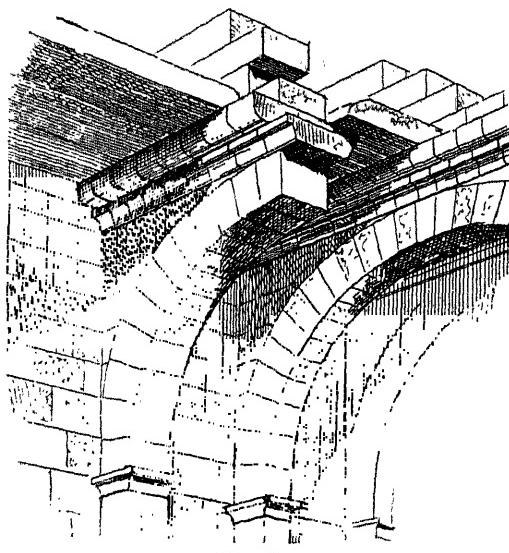


Fig. 3.

barrel-vault running from one end of the hall to the other it is very difficult to do this. I shall therefore attempt to trace this somewhat unusual solution to its earliest type, a type in which this potentiality for lateral lighting is not realised, and in which the arches, placed seldom more than six or seven feet apart, are roofed with stone slabs and never vaulted. This primitive type can be traced back to the commencement of the Christian era, when it is found in Nabataean tombs still existing in the Jebel Haurān (the country lying S.E. of Damascus).

The Nabataeans, who were once thought to have been Aramaeans on account of their language, have been shown by Nöldeke and others to have

As might be expected, the architecture of the Haurān was governed by local conditions. Like the mountains of the Haurān, the entire region is one in which black basalt is the only rock, except at its southernmost extremity, where limestone appears as a building stone in the ruins of Kusair al-Hallābāt.‡ The country does not produce any timber, and this quite material necessity became the mother of invention and led to the discovery of new constructive methods. Thus the arch, the sole means of covering wide spaces, became the principal element of construction, and a series of parallel arcs supporting ceiling slabs (Fig. 3) served to cover most of their halls.§

The architecture of this region is divided by Butler into five groups:—(1) The Pre-Historic—a rough megalithic style without any indication of

* Macc., v., 8.

† Schurer (E.), *History of the Nabataean Kings*, 'being Appendix II. to his *History of the Jewish People*, Div. I., Vol. 2.

‡ Butler (H. C.), *Ancient Architecture in Syria*, Sect. A, pp. 63, 64.

§ De Vogüé, *Syrie Centrale*, tome I., p. 6.

date; (2) The Nabatæan; (3) The Roman; (4) The Christian; (5) The Muhammadan. The first historical period is the Nabatæan, the earliest monument of which that can be accurately dated is placed by him c. 60 B.C. It may, of course, have begun somewhat earlier, and it lasted until A.D. 106, when the Roman period commenced and continued until the time of Constantine. The Roman and Christian periods have much reduced the Nabatæan remains, but many scattered details of very characteristic ornament and numerous inscriptions in Nabatæan script remain.

Butler, like De Vogüé, emphasises the fact that "the architecture was the most truly lithic that the world has ever seen; it was entirely of stone, sometimes even to the doors and window shutters."* It offers a marked contrast to that of Northern Syria in plan, principles of construction and ornamental details—in all those things that go to make up style.† For the roofing of all narrow apartments stone slabs were employed; when the width did not exceed 9 feet the space was reduced by corbels to about 6 feet, and slabs slightly over this length were placed across. The wall was always carried up above the corbels to weight them and keep them in their place. When broader spaces were to be roofed an arch was thrown across, the haunches of the arch were filled up level with the side walls, and long slabs were laid from these side walls to the central line of support thus provided. Corbelling was used at the same time to further help the cross slabs. In roofing a space that was very long as well as over 9 feet in width, two or more transverse arches were used, giving a series of transverse supports all down the hall. The Druses of the Haurān build their houses in this fashion at the present day.

Tombs were wholly or partially excavated in the ground and paved, walled, and roofed with stone. One of the earliest found is described and illustrated by Butler. It is roofed with arches which support slabs (Fig. 4), and eight stelæ with Nabatæan inscriptions were found in it.‡

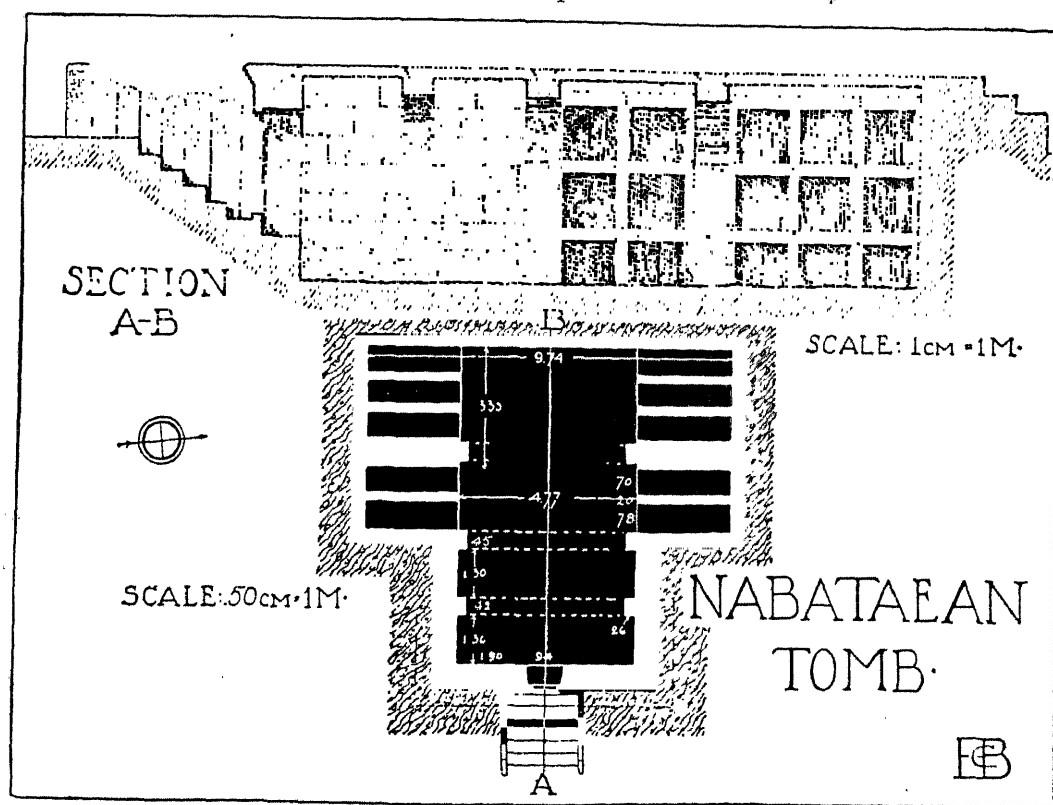


Fig. 4.

* Butler, *Ancient Architecture in Syria*, p. 68.
† Butler, *Architecture and other Arts*, p. 310.

‡ *Ancient Architecture in Syria*, p. 206 and ill. 185. Another p. 207, also illustrated.

Some examples of this form of roofing were published by De Vogüé fifty years ago. Recently the ground has been thoroughly gone over by the Princeton Expedition, which has published and described many new buildings. Confining myself to those which are dated, I have compiled the following list :—

- A.D.
- 345. Church of Julianos at Umm al-Jamal.*
 - 371. Prætorium at Umm al-Jamal.†
 - 412. Kasr al-Ba'ik, near the western border of the southern Haurān. A Greek inscription states that it was built in the reign of the Emperor Arcadius, under the *dux* Phil. Pelagios, A.D. 412.‡
 - 430-1. A small house at al-Majdal, in which it occurs on the ground floor.§
 - 508 (?) Church No. 1 at al-Umtāfiyah. Inscription gives date which may possibly be A.D. 508.||
 - 515. Church of S. George at Zor'ah, dated 410 of the Era of Bosra (= A.D. 515).¶
 - 578. House of Flavios Seos—a Roman-Nabatean name—at al-Haiyāt.**
 - 624-5. Monastery of S. George at Sameh. This date is exceedingly late for a Christian inscription to be found *in situ* in Syria, as Islam had been proclaimed and Christian Arabia was on the point of extinction. Bosra, however, had not fallen and the country was still under the protection of the Empire.††

Let us now stop a moment to examine the exact *raison d'être* of this roofing system. Being a country of stone, the people naturally had a predilection for the lintel, and used it wherever possible. Where, however, it was not possible they used the arch, and it may well be asked, why did they not make the arch continuous, and thus form a barrel-vault. I think the answer must be that, as they were not acquainted with the Mesopotamian method of building a vault without centering by using flat bricks in rings sloping backwards at a considerable angle against a head wall, any barrel-vault built by them would have required considerable timber for the centering—a serious matter. By building a series of separate arches, however, the same piece of centering could be used over and over again as soon as one arch had set, thus reducing the timber required to an absolute minimum, and their favourite lintel method could be used as a final covering. In all these early buildings, however, the fact that the roof is borne on points of support spaced at regular intervals permits the piercing of the side walls for lateral lighting. Yet out of the large number of examples—some thirty or forty—described by De Vogüé and Butler, there are not many in which this opportunity has been realised, and even in these cases it has only been made use of in a timid and halting manner, small square windows pierced at irregular intervals, and not in each bay, being all that is attempted.

The Persians must have been acquainted with this system at a fairly early date, since it is found in the palace built about 50 miles south of Mosul at Hatra.‡‡ (or al-Hadr) by the Parthians, whose dynasty came to an end in A.D. 226. It was left to the keen architectural insight of the Persians to realise its potentialities fully and to carry it to its final development. They were responsible for two innovations : (a) they were the first to use barrel-vaults to connect the transverse arches, thus making it possible to place them farther apart, (b) they pierced windows in each of the curtain walls between these arches and thus obtained excellent lateral lighting, so that when Dieulafoy saw the ruins of the earliest building of this type he was irresistibly reminded of a Gothic cathedral.

This building, known as Tak Eivan or Kout Gâpân, stands at Karkh. This town, which is known in Syriac as Karkhâ de Ladân, was founded by Shapur II., who died 379 A.D. Although seen by Rawlinson in 1838,§§ it was first surveyed and described by Dieulafoy some thirty years ago.¶¶ It is raised on a sub-basement connected with an immense rectangular enclosure, to which it probably formed a monumental gateway. In its present state it consists of a gallery about 60 feet long by 27 feet broad (Fig. 5), which originally formed one of the arms of a long hall, the centre of which was occupied by a dome. Each arm was spanned by transverse arches (*arcs-doubleaux*) brought up level and joined by barrel-vaults (*formerets*). Fig. 6 shows Dieulafoy's restoration, and Figs. 7 and 8 explain

* *Ancient Architecture in Syria*, pp. 173-176.

†† *Ibid.*, p. 85.

† *Ibid.*, pp. 160-166.

‡‡ Andrae (Dr. W.), *Hatra*. Deutsche Orient-Gesellschaft.

† *Ibid.*, pp. 81-83.

Wissenschaftliche Veröffentlichungen, Nos. 9 and 21. It occurs in Room 15—see Abb. 21 and 228.

‡ *Ibid.*, pp. 120-122.

§§ *Journal of the Royal Geographical Society*, Vol. IX, p. 71.

|| *Ibid.*, p. 92.

¶¶ *L'Art antique de la Perse*, tome V., pp. 79-87.

||| De Vogüé, *Syrie Centrale*, tome I., pp. 61, 62 and plate 21.

** Butler, *Ancient Architecture in Syria*, pp. 362, 363.

the vaulting system in detail. The curvature of the transverse arches was found to correspond to a radius equal to half the width of the hall, hence semi-circular arches are shown in the restoration. If we bear in mind the restrictions imposed by longitudinal lighting, the very great step forward here taken will be realised.

We now come to a building which every writer, with the exception of Professor Max van Berchem,* has regarded as Muhammadan. This is Kūsair



Fig. 5. TAK EIVAN, KARKH.

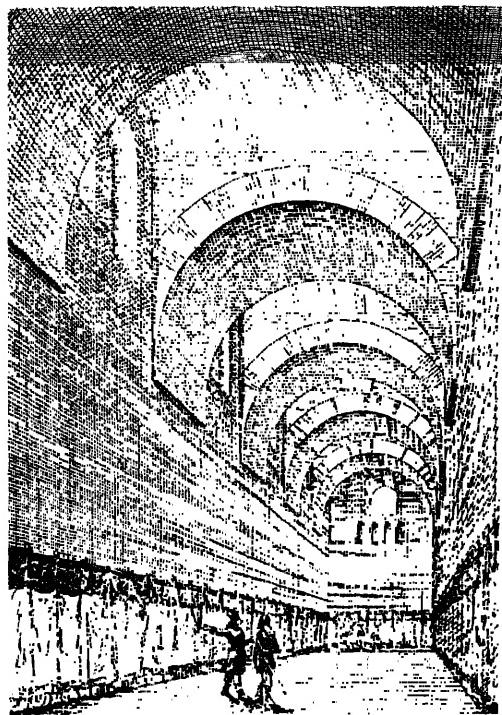


Fig. 6. TAK EIVAN: RESTORED GALLERY.

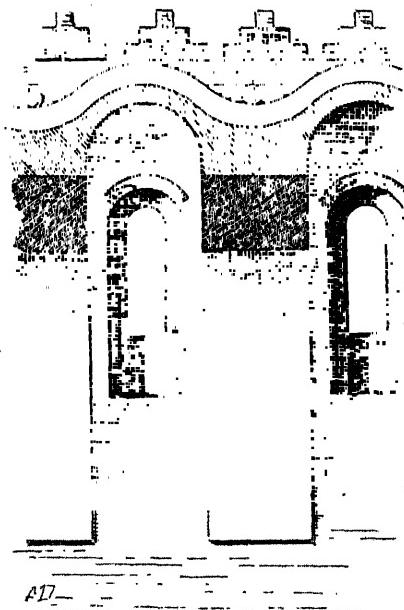


Fig. 7. TAK EIVAN: TRANSVERSE SECTION OF VAULT.

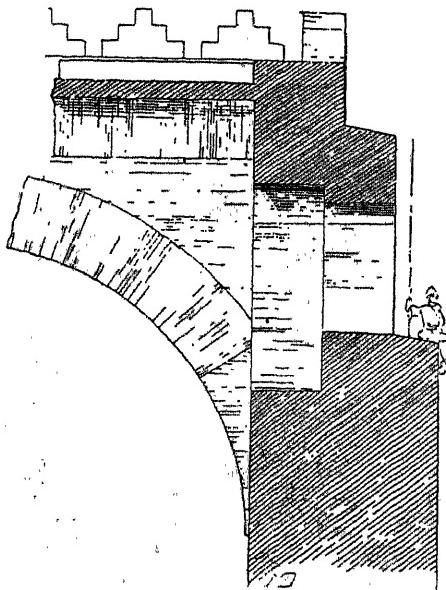


Fig. 8. TAK EIVAN: LONGITUDINAL SECTION OF VAULT.

* See *Journal des Savants*, 1909, pp. 406-408.

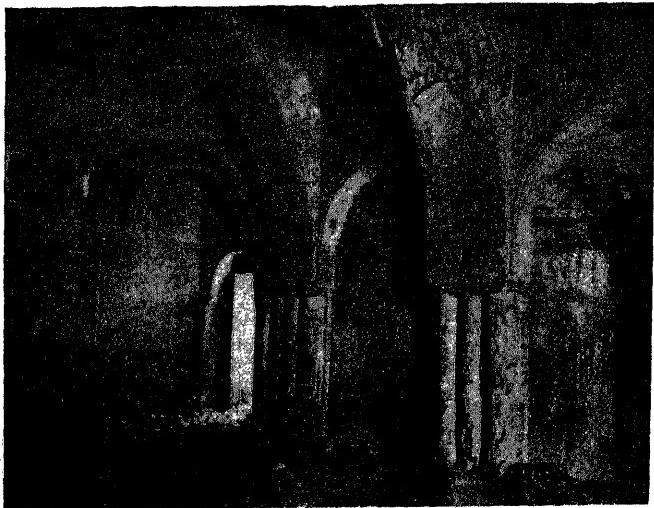


Fig. 9. KUŚAIR KHARĀNEH: INTERIOR OF AUDIENCE HALL.

preservation on its walls of the last three lines of an inscription painted in black and copied by Dr. Moritz,* which runs, ". . . Amīr said it and Abd al-Malik the son of Ubayd wrote it on Monday three days remaining from Muharram of the year ninety-two" (=A.D. 710). Dr. Moritz suggests that Abd al-Malik was probably a member of al-Walid's suite on his return from the visit to Mecca, which he made in A.H. 91 (709), and which is recorded by Tabari and Ibn-al-Athir.

A few hours west of Kharāneh stands Kusair 'Amrah, first seen by Professor Musil in 1898, and completely surveyed by him in 1900 and 1901 under the auspices of the Imperial Academy of Sciences of Vienna. The feature, of course, which concerns us is the hall, roofed with three barrel-vaults resting on transverse arches with windows in the bays between them (Fig. 10), but the unique feature of the building is its rich and well-preserved wall-paintings, which are fortunately combined with

Kharāneh, which stands in the country lying east of the Jordan, the Moab of the Old Testament, or the steppe of Balqa, where so many of the Umayyad Khalifs passed a great part of their lives. Our vaulting system occurs in three halls on the upper floor, but, although the transverse arches are joined with barrel-vaults, windows are *not* pierced in the bays (Fig. 9). In this respect it is unique among Muhammadan buildings vaulted in this fashion, which fact appears to me to lend further support to Prof. van Berchem's views as to its pre-Muhammadan date. As for the date of Kharāneh, a *terminus ad quem* is fortunately provided by the

inscriptions enabling us to fix its date within very narrow limits. The two most important pictures are one representing the Khalif enthroned, with an Arabic inscription too damaged to be deciphered, and another—a group of six figures—representing the enemies of Islam, four of whom may be identified by their inscriptions as Kaisar (the Emperor of Byzantium), Roderick (the Ostrogoth), Chosroes (King of Persia) and Negus (King of Abyssinia). It must therefore have been built after A.D. 711, when the Arabs first came in contact with

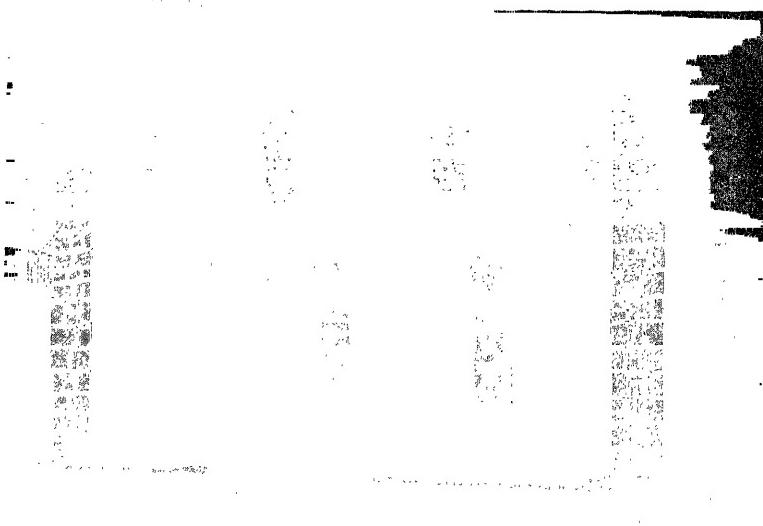


Fig. 10. KUŚAIR 'AMRAH: SECTION OF HALL, SHOWING WALL-PAINTINGS.

* *Ausflüge in der Arabia Petraea: Mélanges de la Faculté orientale, Beyrouth, tome III., p. 422.*

Roderick at the battle of the Guadalete. On the other hand, Professor Musil has brought together detailed historical evidence from the *Kitāb el-Aghānī* and other works to show that it must have been built by the Umayyads, who have been shown both by him* and by Lammens† to have been real Arabs of the desert, fond of hunting, wine, poetry, and the free open-air life, hating towns and neglecting their capital, Damascus, whenever possible, Muhammadans in name but not by temperament. Especially was this the case with Walīd II., a half-Bedouin, who already, when heir to the throne, had selected the steppe of Balqa (Moab) as his dwelling place. He combined with this a real craze for building, and the *Kitāb el-Aghānī* especially mentions pleasure palaces built by him. Professor Musil suggests that just as Tūba, lying in the Wādi Ghadaf, probably corresponds with Aghdāf, so it is probable that Kusair 'Amrah—half bath, half hunting-box—must be one of the Umayyad palaces mentioned in early Arabic literature, concealed under a name that is modern. As the Umayyad dynasty came to an end in 750 A.D., this fixes the other limit. Basing his opinion on convincing arguments as to the identification of the two remaining figures, which, however, I cannot enter into here for want of space, Professor van Berchem has narrowed down the probable date to A.D. 712–715.‡

This fixes the date, more or less, for a building scarcely a mile away, known as Hammām is-Sarakh,§ since its plan and dimensions, as well as the number and arrangement of its rooms, are almost identical. One chamber even is roofed with three barrel-vaults resting on transverse arches with windows in the bays, just as we have already seen in Fig. 10.

Butler has also published a description of an exceedingly early mosque at Kuṣair al-Hallābāt.|| It measures 10.10 m. by 11.80 m. and is divided by two rows of five arches carried on columns and engaged piers (Fig. 11). The walls are levelled up above the arches, and barrel-vaults are turned upon them. He suggests that it belongs to the eighth or ninth century. This mosque has a mihrāb, which he expressly states was built with the walls, and not added afterwards. As the mihrāb does not go back to the earliest days of Islam, this is important, as it gives us a clue to its date. According to Makrīzī, the first to introduce the mihrāb, was 'Umar ibn 'Abd al-Azīz when he restored the mosque at Medinah by order of the Khalif Walīd, A.H. 87–88 (705–706). The mihrāb was copied from the Christian apse, and for this reason was received with some reluctance by Islam—in fact, it is defined as the least holy part of the mosque, and the Imām is earnestly warned not to take up his station within it.¶ In keeping with this statement the exceedingly early mihrāb in the mosque-courtyard of the eighth century palace of Ukhaidir is entirely without decoration, and is a simple rectangular recess roofed with a semi-dome set on horizontal brackets; the archivolt consists of a double ring of voussoirs. Though the first Egyptian mosque was built by 'Amr ibn al-Āṣ in A.D. 642 it was not given a mihrāb until its third enlargement in A.D. 710. The mosque at Kuṣair al-Hallābāt must therefore have been built after A.D. 706 at the earliest. On the other hand, it is scarcely likely to be later than the early part of the ninth century, as it has not a

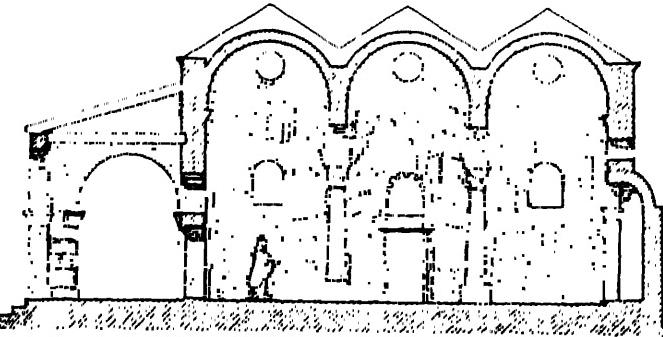


Fig. 11. SECTION OF MOSQUE AT KUṢAIR AL-HALLĀBĀT.

* *Kuṣejr 'Amra*, pp. 151–160.

† *La bâdie et la hira sous les Omayyades : Mélanges de la Faculté orientale, Beyrouth*, tome IV., pp. 91–112.

‡ *Journal des Savants*, 1909, pp. 364–370.

§ Butler, *Ancient Architecture in Syria*, Sect. A, pp. 77, 78, and Appendix, pp. xix–xxv, with plan.

|| *Ibid.*, pp. 74–77 and Appendix xvii–xix.

¶ Bell (G. L.), *Palace and Mosque at Ukhaidir*, pp. 147–151.



Fig. 12. UKHAIDIR: SOUTH WALL, EAST END OF ROOM 82.

Orthma at Baghdād (Fig. 13), which will at once be recognised as having the closest possible affinity with the Hindola Mahal, indeed it would be difficult to find anywhere two interiors so nearly identical. Dieulafoy and General De Beylié* attribute this building to the twelfth century, and Baron von Oppenheim says that it doubtless belongs to the times of the Khalifate† (ended A.D. 1258). I find, however, that Commander J. F. Jones, who saw it in 1846, states that it bears the date 758 (=A.D. 1356-7).‡ This is the year in which the Merjaniyeh Mosque was built, of which Khan Orthma forms part of the endowment. Perhaps the dating inscription may have since disappeared.

Regarding the date of the Hindola Mahal, Capt. Barnes states § that it cannot be fixed with exactitude, as no inscriptions were discovered during the repairs, and he had not succeeded in finding a specific reference to it in any history. He considers it, however, to be one of the earliest Muhammadan buildings at Māndū. This is probable for two reasons, (a) its sloping walls which recall fourteenth-century buildings at Delhi, (b) the fact that a large number of the facing stones bear on their inner

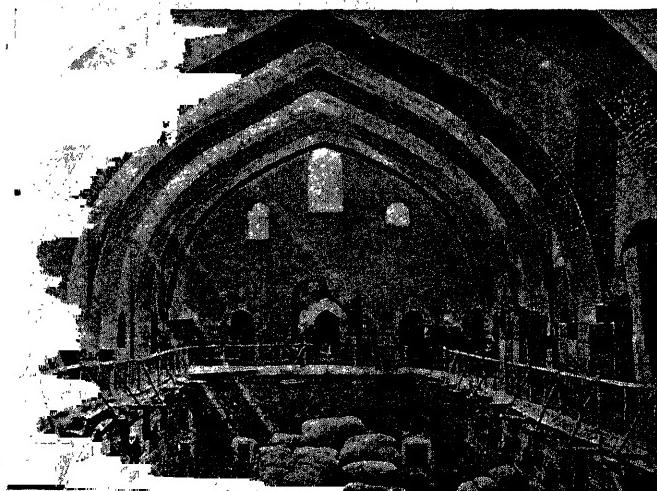


Fig. 13. KHAN ORTHMA, BAGHDĀD.

From Sarre, *Archäologische Reise*, W.P. 924, Vol. iii., pl. II, (2).

* *Prome et Samarra*, p. 33.

† *Vom Mittelmeer zum Persischen Golf*, Band II., p. 241.

‡ *Memoir on the Province of Bagdad*. Selections from the

distinctively Muhammadan appearance, and we know from ninth-century buildings at Samarrā, and from the mosque of Ibn-Tulūn at Cairo (A.D. 876-879), that strong individuality had been acquired by that time.

The last early instance that I shall quote occurs in the palace of Ukhaidir, discovered by Massignon in 1908, and by Miss Bell, independently, in 1909. An interesting example of our vaulting system is found in one room (Miss Bell's Room 82), in which the windows are not pierced, but simply blocked out (Fig. 12). This palace may be placed c. A.D. 750.

The finest and most beautiful example to be found in the Middle East is undoubtedly Khan Orthma at Baghdād (Fig. 13), which will at once be recognised as having the closest possible affinity with the Hindola Mahal, indeed it would be difficult to find anywhere two interiors so nearly identical. Dieulafoy and General De Beylié* attribute this building to the twelfth century, and Baron von Oppenheim says that it doubtless belongs to the times of the Khalifate† (ended A.D. 1258). I find, however, that Commander J. F. Jones, who saw it in 1846, states that it bears the date 758 (=A.D. 1356-7).‡ This is the year in which the Merjaniyeh Mosque was built, of which Khan Orthma forms part of the endowment. Perhaps the dating inscription may have since disappeared.

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Records of the Bombay Government, No. XLIII.—New Series, p. 315.

§ Conservation at Māndū and Dhār. A. S. Ind., Annual Report, 1903-4, p. 31.

This view receives further support from the historical evidence. Māndū was finally conquered by the Muhammadans in 1305, and was ruled by governors appointed from Delhi until Dilāwar Khān declared himself independent in 1401. Like his predecessors, Dilāwar Khān, although he spent several months of the year at Māndū, resided at Dhār, and Māndū only became the capital on the accession of Hūshang (1405-1434). Although Māndū owed most of its splendour to Hūshang, we know from inscriptions that Dilāwār Khān also erected buildings there, viz.: the Tārāpur Gate* and the mosque named after him. This mosque,† as well as the Lat Masjid at Dhār, built by him in 1405, are both constructed, like the Hindola Mahal, of Hindu remains. I think, therefore, on historical and archæological grounds, that the Hindola Mahal was probably built in the first quarter of the fifteenth century, either by Dilāwar Khān or Hūshang, the chances being in favour of the former.

Before closing I give here (Fig. 14) an interesting example of an aiwān vaulted in this fashion.‡ This building stands at Machi, near Hauzdār, on the trade route through Seistan, and was perhaps built about 1600 A.D.

* Zafar Hasan, *The Inscriptions of Dhār and Māndū*: Epigraphia Indo-Moslemica, 1909-10, pp. 18, 19.
 † Barnes (Capt. E.), *Dhar and Mandu*: Journ. Bombay Branch of the Roy. Asiatic Society, Vol. XXI., p. 384.
 ‡ Tate (G. P.), *Seistan*, plate to face p. 136.

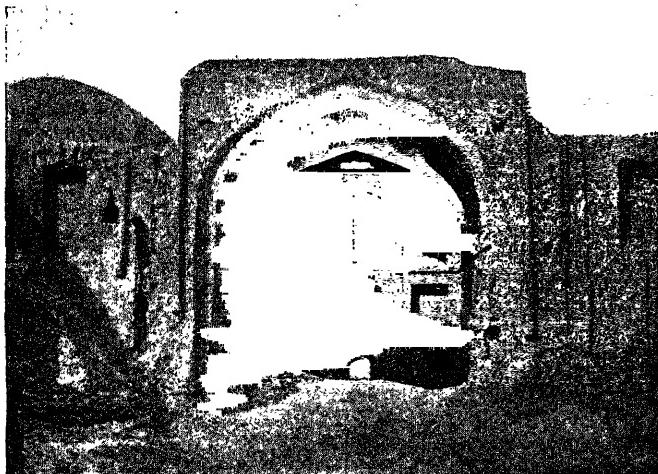


Fig. 14. AIWĀN IN THE RUINED PALACE AT MACHI, NEAR HAUZDĀR, ON THE TRADE ROUTE.

CECIL CLAUDE BREWER.

IN the death of Cecil Brewer we as architects have suffered a special loss. He had developed quite remarkable powers—a balance of the practical and the reflective—but they were necessarily in partial abeyance during these last terrific years of war. If he had lived and work had come to him—he was one to whom work did come—he certainly would have made important contributions to the new era of building that must be before us—the Reconstruction period.

It must be more than twenty-five years since I first knew Brewer, and he seems always to have been the same : eager and friendly and possessed of unsuspected powers—powers of thinking, of expression, of organisation, of drawing, construction and design.

This note is being written away from all references and sources of information, but I believe that Mr. Dunbar Smith was his partner from the first and that their earliest considerable work was the House of the Passmore Edwards Settlement in Bloomsbury. This was a very able piece of arrangement and packing of parts together. I remember feeling astonished that so much "interior" could be got into so little space. Similar power of planning—in this case rearrangement—is shown in the Ladies' Club in Dover Street. Again, in the plans for reorganising a large country house, which he showed me early this year, the greatest skill appeared in opening out a congested complex of rooms and of letting light and air into dark passages and back staircases. The most accessible example of Mr. Brewer's work is Messrs. Heals' new premises in Tottenham Court Road. Here endless problems of planning and lighting must have arisen in attaching the new part to the intricate mass of existing buildings, but it was done in a most masterly way. The frontage is a very sound piece of work : dignified, direct and modern, without affectation of austerity.

Eight or ten years ago Messrs. Smith & Brewer obtained the commission for the Cardiff Museum in competition ; again there was a skilful solution of the highly technical problem. About the same time Brewer made a special study of museums, libraries and picture galleries in Europe. Subsequently he visited the United States on a similar errand, the Institute granting him the Godwin Bursary as a contribution towards the expenses of his inquiry.* He enjoyed this visit greatly and made many friends, notably with Messrs. Cram and Goodhue, then partners. He much appreciated American works, ways and persons, and some of his impressions were recorded in a Paper read at the Institute on his return.† An abundance of valuable observations and reflections must, however, remain hidden in his notebooks, and I wonder whether it might not be possible from these sources to expand the Institute paper into a book on

public galleries ; we badly need books of reference on the main classes of buildings. When we get to work again the R.I.B.A. might well make the collection of suitable material for this purpose one of its objects. A purpose like this would vitalise the Meetings and the JOURNAL. More recently the authorities at the Fitzwilliam Museum, Cambridge, confided to Messrs. Smith & Brewer the preparation of a scheme for the extension of that fine work.

During the last few years of his life Mr. Brewer gave much of his time to the formation and conduct of the Design and Industries Association, the purpose of which is to try to foster an appreciation of English powers of design, especially for production of industrial wares by machinery. In the ominous summer of 1914 an exhibition was organised in Germany to show the advances made in the mechanically produced pseudo Arts and Crafts. The German Government had kept an observant agent here who made a thorough study of our handiwork Arts and Crafts exhibitions and, at the time when they were being neglected out of existence, his countrymen laid hold of the ideas with the intention of turning them to account in German commerce. A *Werkbund* was formed—an association of artists, producers and distributors, to make German goods more attractive in an international sense. Professor Neumann, the leading economical authority in Germany, gave his strong support to the movement, a movement, indeed, which romped along leaping and abounding ; while, so far as I know, no economist of the English sort had ever said "Arts and Crafts" or "Design" in his life. Many of our designers were invited semi-officially to come and see that German tradesmen appreciated the fact that design was an element in goods which might prove of supreme importance. The cost of materials being pretty constant, if a fashion in demand could be induced for certain kinds of convenient shapes, taking colours and patterns, they would be ready to supply such on demand.

A small group of friends who visited the exhibition (I was not one) were greatly impressed by what they saw, and Brewer gave himself with generous devotion to the formation of the new English Society. He took up the duties of Honorary Secretary and for weeks together worked at it almost constantly, all the early meetings being held at his London residence. As obviously disinterested, a giver and not a gainer, Brewer was an invaluable asset to the Society.

Brewer had the international sense also in regard to architecture. What was being done in Europe and America greatly interested him ; for years he had known of the German "attack" for the lead in architecture, and he wanted to wake us up to this also. He had collected a large store of photographs of German buildings, and some months after the war torrent was released he arranged for a lecture on them at the Association. He invited—or ordered—me to prepare the words while he supplied the lantern slides. It suited his method of propaganda that someone else

* Mr. Brewer's connection with the Institute began in 1896, when he was awarded the Pugin Studentship. He was elected Fellow in 1906.

† "American Museum Buildings," JOURNAL R.I.B.A., 12th April 1913.

should be the voice, but the design was his, and he spoke admirably in the following discussion. His debating accomplishments were among my surprises.

As an architect he had the sense of public service and he firmly seized the principles that "fitness for function," "adequate finish" and "quality for price," texts of the new Association, should be brought to bear in architectural designing with all their implications. He early saw the feeble futility of "period designing."

All the time I have known him he was delicate and subject to attacks of severe illness—rheumatic fevers, pleurisy, and then heart weakness. We, his friends, got to think that illness was just his way of living. He recuperated so quickly and his spirits so soon rekindled that only his guarding wife can have constantly realised how serious it all was. He was slight, youthful-looking, and for long an invalid: it is difficult to think of Cecil Brewer as a leader—yet he led. The end may be told in the words of a letter from another architect friend: "Cecil Brewer passed away on Saturday the 10th. He had suddenly become weaker about a week before, but they thought—as he did himself at first—that he might get over it; but it was otherwise ordained, and he faced the inevitable with great courage and fearlessness and simply went over peacefully and quietly. He was conscious almost to the last. He is another bright, clever spirit that has left us before his energies flagged. In fact, it was that restless energy of his that exhausted his remaining strength: in the end his mind could not rest and it wore his feeble body out. We are all very sorry and we shall miss him very much." All his friends will indeed miss him very much; he was a gallant man.

25th August, 1918.

W. R. LETHABY [F.]

WAR MEMORIALS: PLEA FOR ERECTION OF IDEAL SCHEMES.

By the Rt. Hon. SIR ALFRED MOND, BART., M.P.,
First Commissioner of H.M. Works.

[From the *Pall Mall Gazette*, 26 Aug. 1918.]

I have no doubt that the subject of war memorials is one to which more and more public attention will be directed in the concluding stages of the war.

The national desire to commemorate in a suitable manner the sacrifices which have been made by those who laid down their lives for their country is universal. Great the cause was and great the sacrifice has been, so the memorials should be great in the real sense of the word—not necessarily in magnitude, but in beauty. It will be very unfortunate if, when victory comes, the country is to be covered by the art of the monumental mason, only too familiar in our graveyards, with the forms of war monument atrocities with which Germany covered herself after 1870.

There is, however, to my mind, a great danger to be avoided when the erection of the war memorials is

being considered. The danger is that all who are inclined will immediately apply what they regard as suitable war memorials. The tendency to confuse philanthropy, utility, and art is so often disastrous to the production of something really fine. Wings of hospitals, baths, libraries, etc., etc., all excellent civic objects which require maintenance, do not for that reason become memorials of a great historic event or suitable emblems of the great sacrifices that have been made. We must see that whatever form war memorials take—and they will assume many forms—they shall really make plain to all generations and to all people for what purpose they were erected and what they commemorate.

A war is being fought for a great ideal—the liberty of the world—and the memorials must succeed in embodying this ideal. Of course, locality, site, surroundings, and local associations must all be carefully regarded. It might be possible to have some central idea on the lines, perhaps, of beautiful market crosses, which are to be seen in many of the older towns. To attempt by such means to obtain a united scheme emblematic of the universal sacrifice of the nation in stereotyped form could, or should, be adopted. The Royal Academy recently had a conference on this subject, in which I took part, and have, I believe, formed a very strong committee of eminent architects and sculptors, who will be prepared to assist in an advisory capacity local authorities and others contemplating the erection of war memorials. This is undoubtedly a movement entirely in the right direction, for it will enable the best geniuses of our time to find real expression and to prevent any flagrant breach of taste being perpetrated. A Committee of the Houses of Parliament has already been considering the question of a war memorial to be erected to its fallen members and members' sons, to the officials of both Houses of Parliament, and their sons also. The commission for the memorial has been entrusted to Mr. Bertram Mackennal, M.V.O., A.R.A., and will be placed under the great window just inside the public entrance to the House of Commons, and facing Westminster Hall.

Of course, the Imperial War Museum, when it comes to be erected, and the other museums throughout the country, such as that to be established in Scotland, will naturally of themselves be permanent records of the great endeavour of the nation, for enclosed within their walls will be a perpetual remembrance of the activities of the country during the war. While not in themselves symbolic monuments of the war, but rather illustrations of the events to commemorate all that has been suffered and endured, the buildings will lend themselves very naturally to combination with monuments of a sculptural character. In fact, the combination would be an ideal to be achieved—the artist expressing in the monument in the most beautiful form the symbolized essence of all the great sacrifices made for the triumphant victory,

the building containing representations of all that has contributed to make victory possible.

I feel certain that to this almost sacred question earnest and reverent consideration will be given, and that neither artistic efforts nor the means to carry them out will be stinted when the time comes; and I have little doubt that the country will demand from the Government some great national monument which will express to all time and generations its profound gratitude and devotion to those countless numbers who gladly gave their lives that it could live.

REVIEWS.

CEMENTS AND PLASTERS.

The Setting of Cements and Plasters. Transactions of the Faraday Society, Vol. XIV., Part 1, 1918. 8vo. 5s. 6d. net. [Faraday Society, 82 Victoria Street, Westminster.]

Since its introduction in 1850, Portland cement has become one of the most important of structural materials. The effect of persistent mechanical testing and improvements in grinding and burning has been that the conditions necessary for securing a high and uniform quality are well understood. The general adoption of a standard specification in recent years has tended to cheapness and trustworthiness. Meanwhile the chemistry of cements has made slower progress and there is controversy as to fundamental points in the theory of the causes of setting. Prevented from initiating a research by the circumstances of the time, the Faraday Society secured a valuable series of papers by some of the chief authorities on the chemistry of cements. It would not be becoming in one who is not a chemist to intervene in the dispute, especially as some of those who took part in the discussion declared themselves to be neutrals. But a rough indication can be given of the nature of the controversy.

It is agreed that the setting of the simpler cements, such as plaster of Paris, is essentially a recombination with water of the dehydrated gypsum and the formation of a mass of interlacing crystals. The constitution of other cements, such as Portland cement, is much more complex, and about them there is a difference of view. Professor H. le Chatelier is the advocate of a crystalline theory of setting. He supposes the anhydrous constituents of burned cement in contact with water, to be more soluble than the same hydrated compounds. Hence when mixed with water they form a supersaturated solution from which the hydrated compounds rapidly crystallize. As this liberates water the action is progressive. The entanglement of the crystals causes the solidity of the mass. Mr. Rankin, of the Geophysical Laboratory, U.S.A., where extensive researches have been made, and others, attribute great importance to the formation in setting of amorphous colloidal material cementing the individual grains together. His view is that the tricalcic silicate hardens and develops the greatest strength in a limited time due to the gelat-

inous hydrated silica released when this compound is mixed with water.

In a paper by Mr. Blount the methods of determining setting time are discussed and it is pointed out that setting time is necessarily observed in neat cement but that this is only obscurely related to setting time of concrete.

M. Deny and Mr. Lewis described tests on the addition of slag to cement, and contended that 30 per cent. of slag regulates the setting time and improves the strength. But Mr. West and others in the discussion consider the addition of slag to be in general disadvantageous and in some cases dangerous.

In a paper by Mr. Dibdin an account is given of work done for the Science Committee of the R.I.B.A. on the composition and strength of mortars. Ancient mortars contained a larger proportion of lime than is permissible in modern practice. The early builders used a ratio of lime to aggregate of 1 : 2, and he deduces that the rush after economy is responsible for a falling off in quality. Further, in some cases it was found that, contrary to ordinary precepts, an advantage was gained by adding a proportion of clay.

In an interesting discussion various results of practical experience were described. Mr. Caroe stated that the mortar used by Sir Christopher Wren at St. Paul's was extraordinarily good, otherwise the structure would have been in jeopardy, but that he depended too much on the strength of the mortar. He also gave instances of the danger from expansion of cement, a danger which should not be present with modern cement. Mr. Caroe expressed the opinion that the ordinary and casual use of cement by local builders in repairing old buildings is dangerous. He now refuses to allow cement to be used in ancient buildings where the face of the cement is exposed to the atmosphere.

As to the use of slag, Mr. Davis stated that some contractors found it cheaper in the end to pay the price of unadulterated cement than to contend with the delays in hardening which often attend the use of cements adulterated with slag.

W. C. UNWIN [*Hon. A.*].

"THE VILLAGE IN THE VALLEY."

Dulwich History and Romance. A.D. 967-1916. By Edwin T. Hall, F.R.I.B.A., an Estates and College Governor of "Alleyn's College of God's Gift." 8vo. Lond. 1917. [Bickers & Son, Ltd., Charles Street, Haymarket, S.W.]

At the foot of the northern slopes of the Sydenham and Norwood hills lies the hamlet of Dulwich. Though but five miles from Charing Cross, and notwithstanding considerable changes and development during the last fifty years, it retains much of its original rural character and old-world picturesqueness. The woodlands and groves of Dulwich and the immediate neighbourhood are the legacy of centuries; many of its houses, with their delightful old gardens, have been the homes of generations; its quaint village street, with the group of buildings com-

prising the old College and chapel, and the picture gallery, are reminiscent of past ages ; the Toll-house and gate, still in being on the road now known as College Road, have existed for over a century, and within short distance of it stood by the roadside a mill, adjacent to a large pond, and amidst a group of ancient brick and weather-boarded cottages. The mill has gone, but the pond, still known as “The Mill Pond,” and some of the cottages remain. The Pilgrim Way to Canterbury lay through Dulwich, and its track is marked to-day by one of the principal roads, which until recent years was a wooded lane, winding through meadows, bounded by hedgerows, and with a running brook by its side.

The Manor of Dulwich has a history dating back to A.D. 967, when it was owned by King Eadgar, afterwards by Earl Harold, William the Conqueror, and a succession of kings until, under Henry VIII., it passed into private hands, and in 1605 was purchased by Edward Alleyn, an eminent actor, a contemporary of Shakespeare, and proprietor of various theatres on the south of the Thames. In Dulwich he founded “Alleyn’s College of God’s Gift.” It is to-day better known as Dulwich College, and holds a high place amongst the great public schools of England.

Of this history, carried down to present times, Mr. Hall writes in concise and interesting narrative in the book under review. The scope and aim of the book are best described in the author’s own words—viz., “to give in outline the history of the intimate connection of Dulwich with the Crown, the Church, and with other parts of London ; of the origin and growth of the great educational foundation with which its name is identified, and the atmosphere in which it was ‘conceived’ ; also some impressions of the locality, its architecture and its picture gallery.

As an Estates and College Governor, Mr. Hall has an intimate knowledge of his subject, and a keen interest in it. He has had special opportunities of reference to authorities and original records—of which he appears to have industriously availed himself, to the advantage and edification of his readers.

In connection with the subject of the building of the old College it is interesting to learn that Alleyn—notwithstanding his personal intimacy with Inigo Jones—elected to be his own architect. A touch of piquancy is found in the sequel as recorded in the ancient chronicles, wherein it is found that within a few years of the completion of the building “the steeple fell and the Tower had to be replaced.” And a little later a wing had fallen, and had to be rebuilt. And yet a little later, “Ye porch with ye Treasury Chamber, etc., tumbled down to ye ground.” Herein surely lies a moral which every architect will cordially endorse.

The picture gallery attached to the old College was designed by Sir John Soane, and was erected for the purpose of housing and exhibiting the valuable collection of pictures which by extraordinary good fortune had come into the possession of the College. The

collection comprises works of many of the old masters, and some of the finest examples of the Dutch, Flemish and Spanish schools. How the collection was acquired is narrated in this book, and photographic reproductions of several of the pictures are added, together with views of subjects of interest in the locality.

The name of Dulwich is dear to a very large community—the thousands who, as scholars, have passed from the College and schools connected with the foundation to careers throughout the world ; others coming from all parts of the world to visit the picture gallery ; and yet others who, either as residents or as visitors, have known the hamlet and its neighbourhood. For these, and for all who are interested in topographical history and the development of Greater London—and, indeed, for readers in general—this little book will have an interest and will be warmly welcomed.

A misprint occurs on page 20, whereby the date of the conveyance of the lands and buildings by Alleyn to the College is stated as “1630” ; it should be 1620. The error will doubtless be corrected in future issues.

W.M. H. ATKIN-BERRY [F.]

CORRESPONDENCE.

The Statutory Examinations.

To the Editor, JOURNAL R.I.B.A.—

SIR,—The JOURNAL for August contains a letter from “Old Surveyor” suggesting that architects should “go in for District Surveyorships in London.” The position of District Surveyor, however, is by no means an enviable one at the present time, when the total gross receipts of all the districts have fallen to considerably less than half of what they were before the war, and are still continuing to fall. District Surveyors are, as a class, even more seriously affected than other architects by the war. The latter can close their offices, and obtain other more or less lucrative appointments ; whereas the District Surveyor cannot engage in other work, but must keep his office open at his own expense for the benefit of the public. Several District Surveyors have recently resigned their appointments, in some cases because the expenses exceeded the receipts, in others because the small balance left after paying their expenses was not worth the trouble and responsibility involved. It should also be remembered that thirty years ago (the time to which your correspondent refers) the District Surveyor enjoyed private practice—a right now denied to him.—Yours faithfully,

“A DISTRICT SURVEYOR.”

A letter to the same effect has been received from another District Surveyor, who adds : “I agree, however, that young architects, say under 40, would be very wise to pass the qualifying examination, if only for the real insight into the Building Acts and construction (especially ferro-concrete construction as embraced in the Act of 1909) that *must* be acquired before they can qualify for the appointment.

"After all no one can see the future, and no architect could fail to add greatly to his knowledge by tackling the examination and making himself qualified."

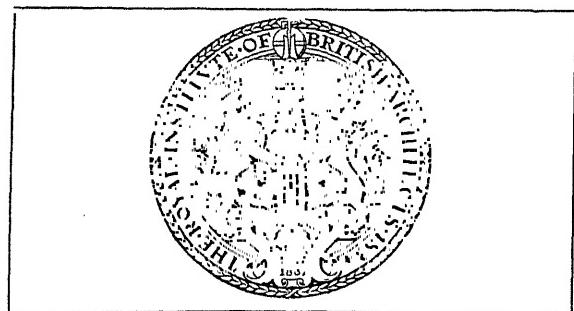
Prisoners of War: Opportunities for Study.

The following letter, addressed by Mr. Arthur Keen [F.I.B.A.], Hon. Secretary of the Board of Architectural Education, to a prisoner of war in Germany anxious to utilise his opportunities for study whilst in captivity, gives information that may be useful to other architectural students similarly situated:—

DEAR SIR,—Your letter of 7th September on the subject of Prisoners of War and their studies for the Institute Examinations has been handed to me, and I am glad to be able to give you the following information. Any prisoner of war who wants books or materials for carrying on his studies can get them by applying to Sir Alfred T. Davies, Hon. Director, Prisoners of War Scheme (Educational), Victoria and Albert Museum, London, S.W.7. The Board of Architectural Education is prepared to take a very sympathetic view of any efforts made by prisoners of war in connexion with their admission to the Institute, and I think you may tell any you are interested in that if they would like to put before the Board a little outline of the work which they think they could do in the prison camp, as a substitute for the ordinary examination, it would have very careful and probably favourable consideration. I see no reason why a man should not, for instance, write a very capable thesis on almost any subject if he had access to a few books of the right kind, and he could probably make designs for some subject that could be dealt with on comparatively small sheets of paper. At Ruhleben there is a regular system of University education, and I believe that about 200 men are acting as professors or instructors in various subjects. The matriculation and Board of Trade examinations have actually been conducted in the camp, and students have passed them. It occurs to me to suggest that some of these professors would very willingly set papers, say, in mathematics, hygiene, or other subjects, which the Board would be quite willing to recognise. I think that educational work is also going on in other camps. As far as admission to the Institute is concerned, you probably know that men who have served with the Colours are admitted if they have passed the Intermediate Examination or have been exempted, and in the case of others a Special War Examination has been set up to take the place of the ordinary one.—Yours very truly,

ARTHUR KEEN.

The Development of Birmingham.—We are asked to mention that copies of Mr. William Haywood's book, *The Development of Birmingham*, reviewed in the last issue, are to be had from Batsford's, 94 High Holborn.



9 CONDUIT STREET, LONDON, W., 21st Sept. 1918.

CHRONICLE.

The R.I.B.A. Record of Honour: Fifty-fifth List.

Fallen in the War.

CABLE, Lieut. JAMES SYDNEY, Royal Garrison Artillery [Associate]. Died on 5th September from an accidental gunshot wound.

HARTMANN, Lieut. CHARLES HERBERT, Royal West Kent Regiment [Associate]. Killed in action on 2nd July.

Lieut. Hartmann, who was elected Associate of the Institute in 1914, was the younger son of Mr. and Mrs. Augustus Hartmann, of 14, Kensington Square, W. (formerly of Weybridge, Surrey). He was educated at Banstead and Charterhouse, afterwards studying architecture at the Ecole des Beaux-Arts, Paris, and with the late John Belcher, R.A., in London. On the outbreak of war he joined the Artists' Rifles, and subsequently obtained his commission in the Royal West Kent Regiment. He was reported missing on 2nd July last, and is now known to have been killed in action on that date. He took part in a successful attack on 30th June, gaining the enemy trenches, and, on these being lost two days later, he at once organised a counter-attack, in which he was last seen leading his men. His commanding officer writes:—"He had not been with us long, but had already gained many friends, and I feel we have lost a very good officer."

CHALKLEY, Lieut. THOMAS HENRY, Machine Gun Corps [Student]. Killed in action at Croiselles on 29th August.

Lieut. Chalkley, who was born in 1885, served his articles with Mr. C. G. Boucher, and was afterwards in the office of Mr. W. Campbell Jones [F.I.B.A.]. He offered himself for service at the outbreak of war and subsequently, but was rejected four times, and finally was accepted in March, 1916. He was granted a commission in the Machine Gun Corps in September, 1917. He was in the Cambrai advance last November and had been in much heavy fighting this year. "A good officer and a good man," his Colonel writes; "he is a very great loss, and we shall miss him so much."

Distinctions.

HALLEY, Capt. J. M., R.E. Mentioned in dispatches and promoted Major.

Serving with the Forces.

Intimation has been received that the following are serving, bringing the total, as far as information has reached the Institute, to 79 Fellows, 540 Associates, 336 Licentiates, and 300 Students:—

ASSOCIATES.

Parkinson, C. E. L., Lieut., D.O.R.E.
 Mansfield, Leslie, Officers' Cadet Wing, Royal Air Force.
 Spencer, Thos., Lieut., Royal Air Force.
 Jefferies, H. George, Royal Marine Engineers.

LICENTIATES.

Wright, O., 2nd Lieut., A.S.C.
 Madgin, A. J., 2nd Lieut., A.S.C.
 Powis, G. P., 3rd A.M., R.A.F.

Promotions.

Gordon, Corporal B. M. [A.], to 2nd Lieut., R.E.
 Bulmer, F. H. [A.], to 2nd Lieut., R.E., from R.A.M.C.
 Symmonds, 2nd Lieut. W. [A.], to Lieut., C.E.R.B.
 Brittan, 2nd Lieut. Harold William [A.], to Lieut., Worcestershire Regiment.
 Ellison, Lieut. R. Kitching [Licentiate], to Captain, R.A.M.C., Sanitary Section.

Committee for the Fine Arts at Oxford University.

An important statute has been promulgated in Congregation at Oxford University constituting a "Committee for the Fine Arts." The statute was proposed, on behalf of the General Board of Faculties, by Professor Arthur Thomson, who pointed out that its purpose was to promote an interest in the Fine Arts and to develop their study within the University.

The Committee is made up of *ex officio* members, elected members, and co-opted members. The *ex officio* members include the Vice-Chancellor and Proctors, the Slade Professor of Fine Art, the Lincoln and Merton Professor of Archaeology and Art, the Keeper of the Art Galleries, the Keeper of the Antiquarium, the Ruskin Master of Drawing, the Curator of the Pitt Rivers Museum, and the Keeper of the Hope Collection of Engravings. The elected members, four in number, are elected by the Boards of the Faculties of Literæ Humaniores, Modern History, Mediæval and Modern Languages, and Natural Science respectively. A further six additional members may be co-opted. The elected and co-opted members of the Committee need not necessarily be members of the University, an option which provides the means whereby the University may be brought more intimately in touch with professional and expert opinion.

The University has vested this Committee with certain powers and duties, amongst which may be noted the "power to make arrangements for lectures and courses of instruction to be given within the University, on the Fine Arts or subjects pertaining thereto." The Committee has power, if it thinks fit, to submit to the General Board of the Faculties "proposals for the institution of a Diploma or Certificates in the subjects under its control or for the promotion of these subjects by the introduction of other appropriate University examinations."

The view taken by the promoters of the Statute was that the University should concern itself mainly with the cultural aspects of Art as distinct from its professional and technical requirements—in other words, that the University should provide such courses, historical, theoretical, and philosophical, as would serve not only as an introduction to the study of Art, but would tend towards a better appreciation of the aims and object of Art amongst educated people. It is considered that such instruction on broad lines is bound to be useful to those who are ultimately to take up some branch of Art professionally, or in any way to interest themselves with seriousness in its study and

advancement, for it would tend to widen and deepen their outlook upon Art as a vital element in any civilised community, and thus to link up together its various branches into a close and healthy relation with one another.

For these reasons, and anxious to get as much as possible into touch with the principal centres of artistic practice and influence throughout the country, the Committee has appointed a sub-committee to make inquiries and collect information as to how best the University can promote the interests of Art by such means as appropriately lie within its domain.

Unfortunately the financial resources of the University are likely for some time to come to be extremely limited, but it is possible that by the adoption of a co-operative policy ways and means may be found, either by private benefaction or individual help, to give effect to a well-considered and effective scheme.

Housing of the Working Classes in Scotland :
Scottish Institute's Competition.

In view of the Government's proposal to assist local authorities after the war to provide houses for the working classes, the Institute of Scottish Architects approached the Local Government Board for Scotland, suggesting the holding of an architectural competition formulated in such manner that there might be placed at the disposal of local authorities the best advice for designing suitable types of houses laid out and grouped in the most approved form with due regard to economy. The proposal was favourably received, and the Board have now authorised the Scottish Institute to promote such a competition under which architects may submit designs for various types of houses with lay-out plans showing the disposition and grouping. The conditions have been drawn up, and copies may be obtained from the Secretary, 128, George Street, Edinburgh.

The competition, which is open to any British subject, is divided into three sections. The first two sections are for lay-out plans accompanied by designs of the types of houses described below. The third section is for the design of cottages for rural areas without a lay-out plan. The selection of designs in accordance with their merits will be made by a committee of selection appointed by the Local Government Board and consisting of Sir John J. Burnet, Mr. A. N. Paterson, Mr. J. M. Dick Peddie, Professor S. D. Adshead, and Mr. James Thomson.

A panel of architects whose designs are approved by the committee will be formed, and a list of the names on the panel will be furnished to local authorities preparing housing schemes, with a recommendation from the Local Government Board that architects from the panel should be appointed to advise in carrying out such schemes. It is the intention of the Board that to the names thus selected they shall add, in consultation with the Institute of Scottish Architects and subject to the approval of the Committee of Selection, the names of architects whom they consider to be qualified who have not taken part in the competition owing to the fact that they are at present serving in H.M. Forces, or for other reasons. Premiums to the total value of £725 will be awarded for the most meritorious designs submitted.

In Section I. houses of the four following types are asked for:—Type (a), Living room, scullery, and three bedrooms, in two storeys; Type (b), Living room, scullery, and three bedrooms, one of which is to be on the ground floor and suitable for use as a parlour, in two storeys;

Type (c), Living room, scullery, parlour, and three bedrooms, in two storeys; Type (d), Two-storey flats, consisting of living room, scullery, and two or three bedrooms, with an independent entrance, the stairs to the upper flats being inside.

Section II. is for a scheme of tenement houses consisting of two types of houses with the following accommodation:—Type (a), Living room, scullery, and two bedrooms; Type (b), Living room, scullery, and three bedrooms. Adequate wash-house accommodation, drying greens, front and back gardens, children's playgrounds, &c., must be provided.

Section III. is for a design of a cottage of one storey containing living room, scullery, and two bedrooms.

Designs must be delivered not later than 30th November, 1918. Competitors' questions must be in the hands of the Secretary of the Scottish Institute not later than 30th September, 1918.

"The Architect": Designs for a Title-piece.

The proprietors of *The Architect* wish to obtain designs for a new title-piece for their front page and invite designs from the students of the various architectural schools under the following conditions:—

Designs to be drawn in pen and ink, and to be 1 foot 2 inches long by 5½ inches deep (twice the size of the actual heading). The designs to be sent to the Editor of *The Architect*, Imperial Buildings, Ludgate Circus, London, E.C., on or before the 7th December.

The designs to be on white paper and to be sent rolled with a sealed letter containing the name and address of the designer, which will be opened after the award is made. The lettering to be "The Architect," and under it in smaller type "A Journal of Structural and Decorative Art."

From the designs so submitted the proprietors and their editor will select seven designs and will award the following premiums:—

For the selected design, 7 guineas.

For the second, 3 guineas.

For the next best five designs, 1 guinea each.

They will also publish the accepted design and some of the others in *The Architect*, and will arrange, if possible for the exhibition of the designs submitted.

OBITUARY.

Ralph Nevill, F.S.A., of Clifton House, Castle Hill, Guildford, whose death was recently announced at the age of seventy-two, was elected an Associate of the Institute in 1870, Fellow in 1877, and was placed on the list of Retired Fellows in 1909. He served his articles with Sir G. Gilbert Scott, and remained with him for some years as assistant. He started practice in Godalming, and afterwards had offices in London, first in New Bond Street and later in Chancery Lane. Among his works are houses for Sir Henry J. Holland, Mr. I. H. Foster, and Mr. W. B. Lushington; Snowdenham Hall, Bramley, Surrey, for Mr. Robert Courage; Witmead, near Farnham, Surrey, for Colonel

Davis; All Saints' Church, Norfolk Square, London; vicarage and schools at Busbridge, and various works of restoration at Saxby, Rotherfield, Witney, and Wickhambreux churches, and Godalming Parish Church. He was the architect of various houses in Gloucestershire, Surrey, Essex, and Hants, his most recent work being the restoration of Borde Hill, Cuckfield, Sussex, for Colonel Stephenson Clarke. He took an active part in the work of the Society of Antiquaries; being hon. secretary for Surrey, and serving on the Council for forty-two years. He was the author of *Old Cottage and Domestic Architecture in S.W. Surrey* (Guildford, 1889) and other works, and contributed to the Transactions of the Institute a Paper on the "Auditorium of a Theatre," and "Notes on Cottage Architecture" [JOURNAL, Vol. IV., 3rd series].

The late F. R. Farrow.

Mr. BANISTER FLETCHER [F.] writes:—I should like to add one word as to the loss the profession has suffered owing to the death of my old friend, Frederic R. Farrow. Mr. Percy Marks, in the July number of the JOURNAL, gave a very sympathetic outline of Mr. Farrow's career, to which I could add little of interest. I first met Frederic Farrow when preparing many years ago for the R.I.B.A. Examinations. He was then in Craven Street, Strand, and his classes included a large proportion of the students of the day. I little thought that I should be associated with him later on in this kind of work, but that came about through my connection with King's College. A man of vast and varied information, he was always willing to place his stores of knowledge at the disposal of his younger brethren. He was a true friend, and a number of architects, both amongst the older and younger members, will feel that in his passing they have lost a sympathetic confrère.

NOTICES.

The Associateship : Special War Regulations for Candidates.

The Council have granted the following temporary concessions to Students R.I.B.A. and others serving with the Forces who desire to qualify for Associateship R.I.B.A.:—

(A) *Special War Exemption* for "Students R.I.B.A." who have served in the Forces.

(B) *Special War Examination* for persons not eligible for, or desirous of availing themselves of (A), who have served in the Forces.

Full particulars of the above may be had from the Secretary.

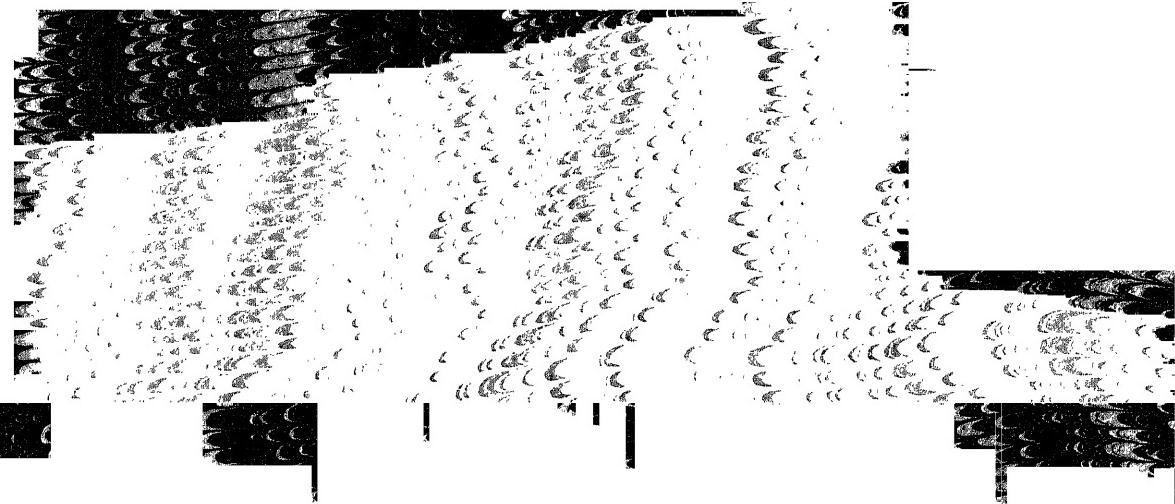
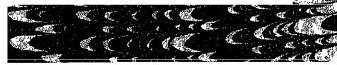
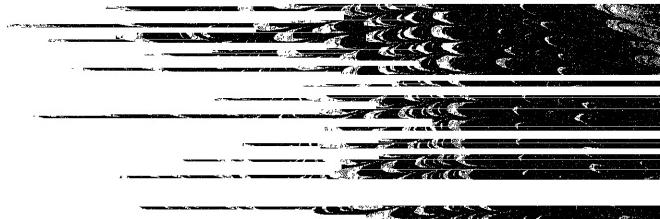
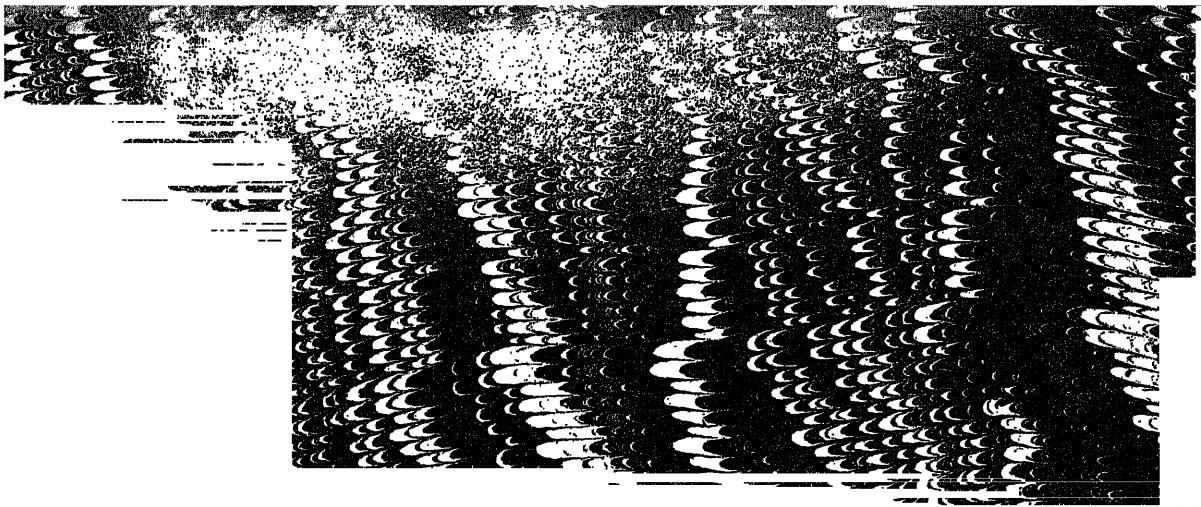
Licentiates and the Fellowship.

Particulars of the Examination of Licentiates wishing to qualify for Fellowship may be obtained from the Secretary. The next Examination will be held in January.

The Statutory Examinations.

Examinations of candidates wishing to qualify for the position of District Surveyor under the London County Council or Building Surveyor under Local Authorities will be held by the Institute on 23rd, 24th, and 25th October. Applications must be sent in to the Secretary R.I.B.A., by 9th October.





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